# RAILROAD MAGAZINE

May

15¢ Canada 17¢

## LINK and PIN

*Symbol of Dangerous Yesterdays*

# AT THE FIRST SIGN OF INFECTIOUS DANDRUFF— Listerine!

WHEN ugly flakes and scales begin to speck your clothes, when your scalp begins to itch annoyingly, it's time to act—and act *fast!*

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**that brought improvement to 76% of cases in a clinical test**

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Always follow with vigorous and persistent massage with fingers or a good hair brush. Continue the treatment so long as dandruff is in evidence. And even though you're free from dandruff, enjoy a Listerine massage once a week to guard against infection. Listerine Antiseptic is the same antiseptic that has been famous for more than 50 years as a mouth wash and gargle.

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*May, 1941* *Vol. 29, No. 6* *15 Cents*


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*A* **RED STAR** *Magazine*

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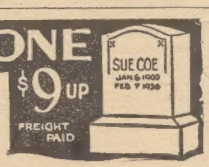


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| 5.25-17 | 2.45 | 1.15 |
| 28x5.25-18 | 2.45 | 1.15 |
| 29x5.25-19 | 2.45 | 1.15 |
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| 29x5.50-19 | 2.75 | 1.15 |
| 6.00-16 | 3.15 | 1.45 |
| 6.00-17 | 2.85 | 1.15 |
| 30x6.00-18 | 2.85 | 1.15 |
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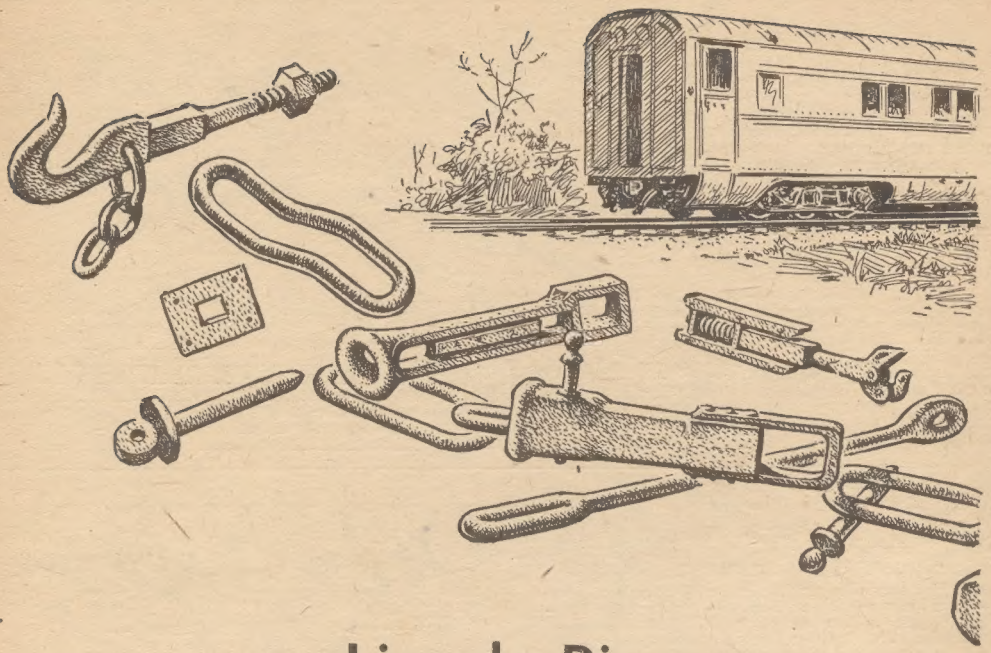


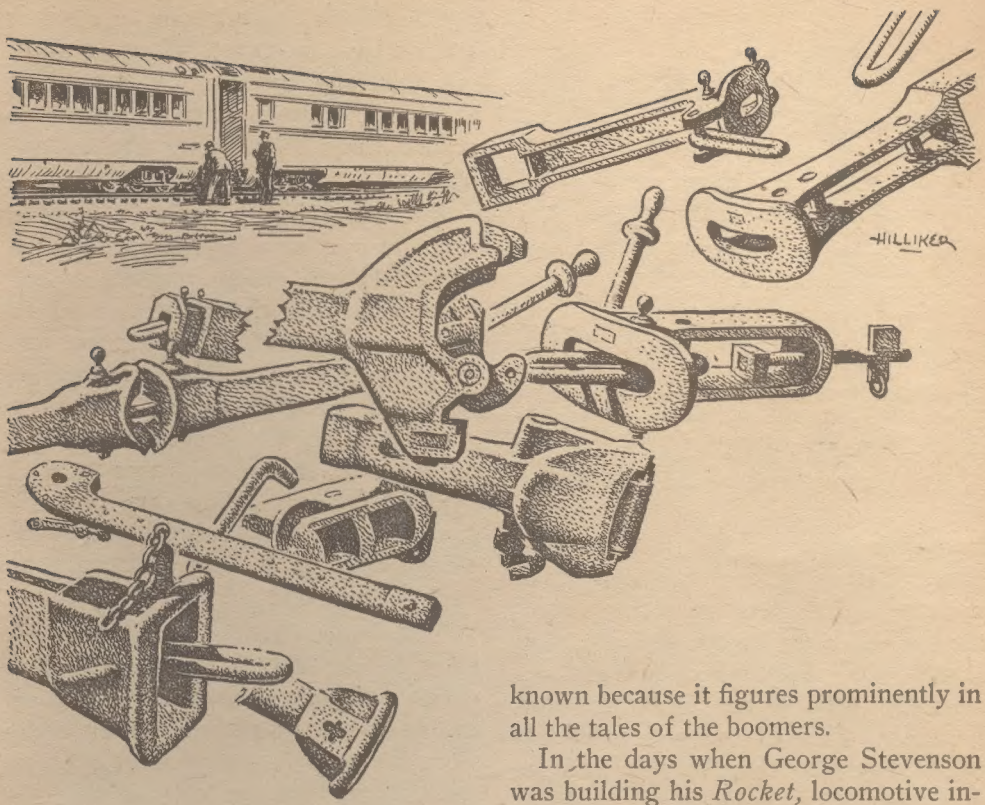
# Lincoln Pin

## *Death Took No Holiday, in the Days of Manual Coupling*

ON THE bitterly cold gray afternoon of St. Patrick's Day, 1857, a local passenger train from Hamilton, Ontario, on the Great Western Railway of Canada, was proceeding cautiously across the bridge over Des Jardines Canal. Its engineer, a comparatively young man, moved gingerly, feeling his way, because he knew the weather-beaten structure was none too substantial and the wintry weather tended to make it brittle. But in spite of his care, the balloon-stacked engine somehow jumped the track, landing on the bridge timbers. These it cut like a knife through cheese and then, falling on the string pieces, it parted them and instantly pitched headlong sixty feet below to the frozen surface of the canal.

Two feet of solid ice which covered the water offered little resistance to the heavy weight. Engine and tender plunged to the bottom of the canal, eighteen feet deep, taking along the engineer and fireman to certain death. This, terrible as it was, might have been the total extent of the loss if the train had been equipped with modern couplers. But, alas! practical automatic couplers were not even invented until years later.

The Great Western's practice was not only to hook its cars together by the primitive method then in use but also to connect them with heavy chains on each side of the center coupling. Accordingly, when the engine broke through Des Jardines bridge, she dragged the rest of the train after her. Out of ninety persons aboard,



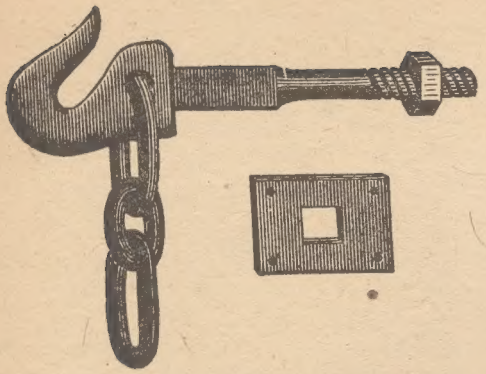

sixty perished—one of the greatest proportionate casualty lists in the entire history of railroad accidents!

With automatic couplers, as we said, this would not have happened. The train was running very slowly and the engineer's signal for brakes was given in ample time to apply them vigorously before the last of the three cars came to the fatal opening. It was the dead weight before them that dragged down the baggage car and the two coaches; they were not hurried by their own momentum.

This catastrophe symbolizes, in a way, the dangers that lurked in old-fashioned coupling devices. We say *devices,* for there were many, not alone the link-and-pin—although the latter, with its variations, is most widely known because it figures prominently in all the tales of the boomers.

In the days when George Stevenson was building his *Rocket,* locomotive inventors were too busy trying to get local permission to lay tracks and persuading the populace to give their fire-wagons a trial to worry much about specific methods of attaching the cars together to form a train. During the 1830's car and engine couplings were simple affairs, consisting mainly of a flat iron bar with a hole at each end, through which a coupling pin was dropped and held to the body of the car by a clevis.

A variation of this practice was an upright pin fastened to the end sill of each car; a bar with holes in each end was dropped over the two pins and a cotter key was used to prevent it from working up. Couplings were sometimes effected by merely fastening the cars with a three-link chain thrown over the upright pins. This allowed the open platforms to bump merrily



**Little Coal "Jimmies" Serving Roads Which Tapped the Anthracite Region of Pennsylvania, Used This Type of Draw Hook and Triple-Link Coupling for Nearly Half a Century, Dating From the Early Forties**

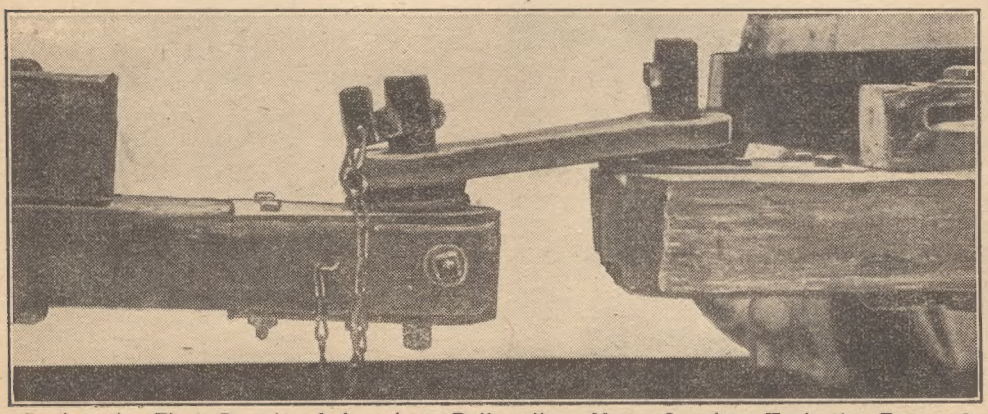
into each other as the train rambled along. There may have been other varieties of couplers more than a century ago, but we cannot be quite sure, because early drawings of railroad cars are rather deficient in such details. Perhaps draftsmen of the period did not think them important enough to show at all.

Inasmuch as the earliest cars were four-wheeled vehicles, light enough to be shoved together by one or two men making up a train, crude fastenings usually sufficed. However, in the latter part of the 1830's Ross Winans' double-trucked cars began to appear; and by 1840 the iron road was becoming generally accepted by the public and longer trains were being run. Naturally, these required heavier couplings.

The prevailing method was a wrought-iron drawbar attached to the end of the car, which, in addition, had openings in the center through which a link was inserted. This, in turn, was held fast to the shank of the drawbar by a pin inserted from above in a round hole in the drawbar. The pin could be inserted or withdrawn by hand to couple or uncouple the car. Thus we have the early link-and-pin type coupler, referred to by many old rails as the "Lincoln pin."

This much-cursed device was responsible for the loss of hands or fingers on the part of many thousands of railroad men, and on innumerable occasions the men themselves were crushed to death between the buffers.

Since the link was inserted while the cars were backed slowly together, and the pin then dropped in place by hand, the brakeman or switchman had to stand close to the cars as they came together, as our front-cover picture



**During the First Decade of American Railroading, Many Couplers Took the Form of Vertical Pins Projecting From End Sills. A Short Iron Bar, Drilled to Receive Them, Was Dropped into Place and Secured with Cotter Keys**

shows. Although it was not mechanically necessary for him to put his hand between the buffers, the slightest miscalculation sometimes proved fatal. Today there are hundreds of men still in service, most of them ex-boomers, who were maimed by careless handling of the link-and-pin. Even A. F. Whitney, popular president of the Brotherhood of Railroad Trainmen, bears a grim reminder of his boomer days—a mutilated left hand.

"I lost the ends of two fingers while coupling cars," he told us. "That was back in the days of the link-and-pin. I'm glad we don't have such couplers any more; glad that brakemen today don't have to risk losing their fingers or hands in making up trains."

AN OLD-TIMER known as "Highball" John Burns of Phoenix, Arizona, who has often written for this magazine, tells of a Chicago yardmaster "way back when" who was shy the thumb on his right hand, thanks to the link-and-pin. Despite this handicap, the Y.M. made a point of using his maimed hand to give trick signals to new men. He would breeze out of his yard office, touch his cap with his right hand, and then, with the same hand, would hold the top of his headgear, his fingers outspread. This might be interpreted to mean either Track 4 or Track 5. Generally a new man would go for Track 5, whereupon the Y.M. would snort disgustedly and repeat the performance with his digits. At length a sympathetic engineer would confide to the new man:

"That bird is shy his right thumb, and uses his right hand only for signals from Tracks 1 to 4. He uses his left for Track 5."

But very few rails saw a humorous side to having their hands mutilated in

*Photo by V. G. Jackson, Beaver Dam, Wis.*

**Link and Pin Nailed Over the Door of the Milwaukee Road's Section House at Columbus, Wis.**

the not-so-good old link-and-pin days. Some companies tried to mitigate this evil by the issuance of coupling sticks to train and yard men. On some roads, these sticks were cute little paddles with neatly turned handles, flat sides, and a notch to hold the link and guide it into place, so the railroader would not have to jeopardize his flesh and blood and bones. A shiny black leather belt and a sheath were provided in which to carry the stick; and rules were promulgated requiring the men to use it.

From an old WC rulebook issued October 1st, 1878, Roy L. Martin quotes this item in his *History of the Wisconsin Central* (published by the Railway & Locomotive Historical Society):

"Great care must be exercised by all persons when coupling cars. Inasmuch as the coupling apparatus of cars or of engines cannot be uniform in style,

size and strength, and is liable to be broken, and from various causes, to render it dangerous to expose the hands, arms or persons of those engaged in coupling between them, employees are enjoined, before coupling cars or engines, to examine, so as to know the kind and condition of the drawbar, link and coupling apparatus, and are prohibited from placing in the trains any car with a defective coupling, until they have first reported its defective condition to the yardmaster or conductor.

"Sufficient time is allowed and may be taken by employees, in all cases, to make the examination required. Coupling by hand is strictly prohibited in all cases where a stick can be used to guide the link or shackle; and each yardmaster, switchman, brakeman, or other employee who may be expected to couple cars, is required to provide himself, at all times, with a stick for that purpose."

Unfortunately, a great many employees, especially the hard and tough boomers, reasoned that "fingers were made before coupling sticks." They disdained to use the safety gadget on

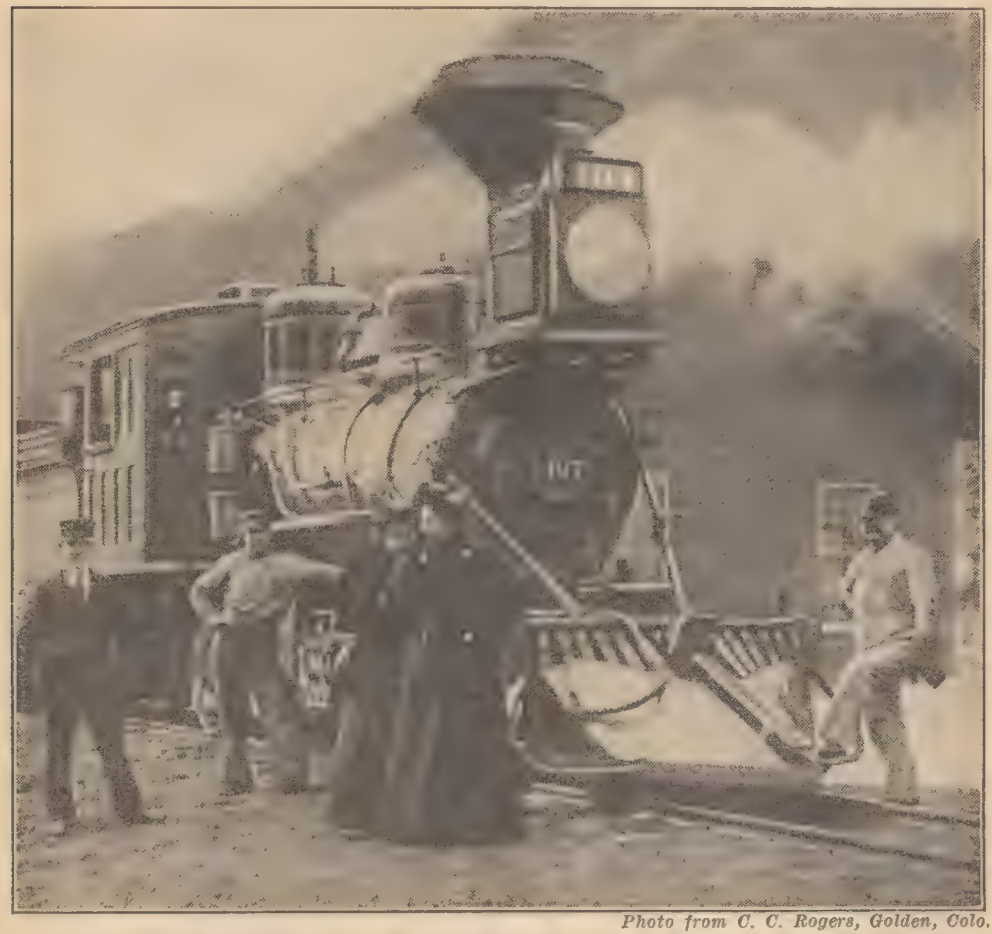
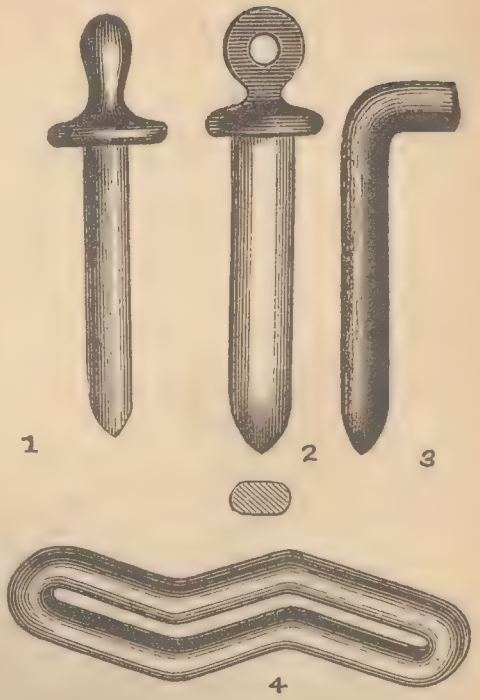


*Photo from C. C. Rogers, Golden, Colo.*

**Extended Pilots Necessitated Long Pushing Bars, Hinged Horizontally After the Fashion of Modern Drop Couplers. Here's the UP's 107 Drawn Up in Front of the Colorado Central Division's Silver Plume Depot in 1896**

the ground that it wasted time, and designated as sissies the men home guards did use it. Only when word was passed along the line that some official was coming did they take advantage of the protection afforded by the coupling stick. As a result, the Interstate Commerce Commission stated in its 1890 annual report that the most common accidents on railways were those which occurred in the coupling and uncoupling of cars, no less than one-third of the total being attributed to that cause.

The United States Patent Office issued patents on more than ten thousand different types of link-and-pin couplers, at least a thousand of which were in use! Every railroad had its official who preferred this or that kind of coupling; some even made pets of several kinds, regardless of what type was used on connecting roads.




1. Solid-Head Pin
2. Eye-Head, Flat Pin
3. Bent-Head Pin
4. Crooked Link

SUPPOSE you are a brakeman on way freight, which means you do all the switching at stations along the road. Your train stops at a certain station where you find there is a car loaded for you to take along. Well, your engineer backs the train into that car and you proceed to couple it on—or rather, *try* to couple it on.

Say, for convenience's sake, the height of the drawbar of the new car is the same as that on the car to which it is to be coupled. Well, after appraising the holes in the two drawbars, you hold up one finger as a signal to your partner on the front end that you want a round pin. Next, holding up two fingers side by side, you request a flat pin. Third, you spread out all the fingers of both hands and bring them together in a circle several times, indicating you also desire a link.

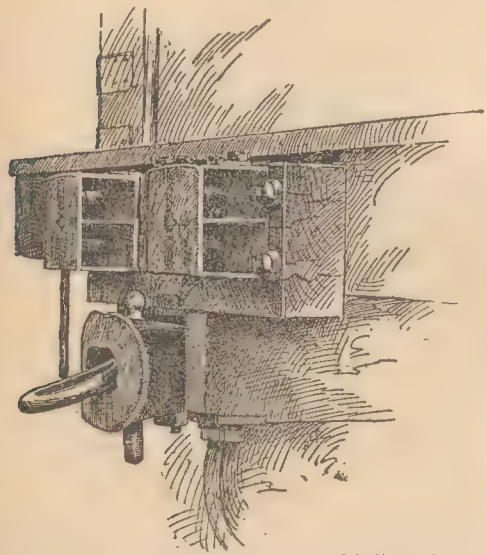
The front man then proceeds to look around in the tank until he finds what seems to fit your needs, and comes hurrying back with them. You discover the round pin is too large to fit the hole in the coupler; the flat pin is no good, either; and the link fits into one drawbar all right, but is too broad for the other one.

At length you make a trip to the caboose and bring up all the coupling paraphernalia you have accumulated for such emergencies, and after maybe an hour's fuming, by the trial and error method, you get the coupling made. Many times the task is made even more difficult by each car having drawbars at a different height. In that case you have to find a crooked link to join them together.

It would not have been quite so bad if each car always had a suitable link-and-pin attached to its drawbar, but train crews made a practice of stealing

all the loose couplings they could lay hands on, so as to have enough variety for any emergency. And, under the circumstances, you could hardly blame them. You'd probably have done the same thing yourself.

This theft of links and pins from cars standing on sidings grew so common and caused so many delays that some genius thought up a scheme of fastening the pins to their drawbars so they could not be removed entirely. This was worse than the loose pins. You would pull the pin to cut off a car, then signal the engineer to "give it a kick." The first jar would cause the pin to drop back in the groove again, which would necessitate your going between the cars once more to pull it out. Sometimes you'd have to yank it out three or four times before the car could be uncoupled. When you couldn't make it stay up through ordinary persuasion, the only thing to do was hold the pin up with your hand and run along with the car until it attained sufficient momentum to roll where it was wanted to go. In such cases, there was grave danger of catching your foot in a frog or guard rail, or stumbling over the ties and falling between the moving cars.



**Freight Car Installation of a Link and Pin Coupling. Note the Deadwood Buffers, Cause of Many a Fatality**

With every train crew having its own collection of scores of couplers, the expense to the railroad company was enormous. Someone has estimated it cost the average class 1 pike around $60,000 a year merely to replace couplings. However, this set-up brought glory to the General Manager of one large Eastern road, who won the admiration of his stockholders by saving the line more than $10,000 a year. He did it by the simple expedient of refusing all requisitions for links and pins. He got away with it, too, thanks to the unwilling but clever cooperation of night yard men.

When the men reported for duty at night they would find about six hundred couplings to be made, but not a single, solitary link or pin available, because the day men had swiped them all to make up trains dispatched during the day. So the yardmaster's nightly job was to take a switch engine and a boxcar to the yards of a connecting road, under pretext of making a transfer. This he did by the "Trojan horse" method. All switchmen of the connecting line who happened to be in sight, he would invite to the nearest saloon and entertain them for an hour or so. Meanwhile, a host of his men scrambled out of the boxcar and proceeded to collect all the links and pins they needed for their work.

Sometimes the job was quite difficult, because the hired hands on the rival pike were so inconsiderate as to set brakes on two or three cars at the end of a string, then take up the slack and set the brakes at the front end. Thus the pins could not be removed without

A Typical Link, Pin and Drawbar Assembly. The Latter Usually Measured Five by Five Inches in Cross-section

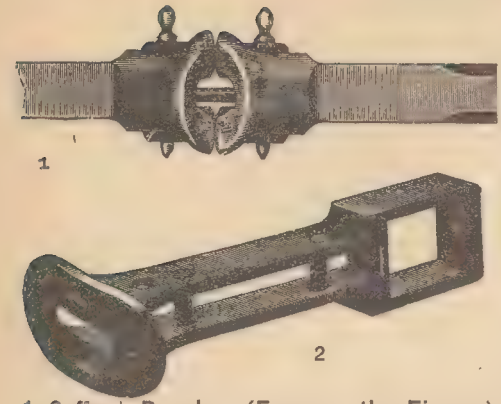
the raiders climbing up to release brakes on the cars, and then, sweating, to push the cars back one at a time enough to slack the pins. Of course, the night raiders might have coupled a goat onto the string to slack it, but that would have been a dead give-away of what they were up to.

IN ADDITION to such ludicrous goings-on, the link-and-pin, as we have pointed out, took a frightful toll in fingers, hands, and sometimes feet of careless trainmen, and caused innumerable deaths. But even all this butchery does not tell the whole story. The hand coupler was also at the root of perhaps the deadliest feature in old-time wrecks—the telescoping of passenger cars.

The earliest coaches, no matter how frail and light they might have been, were at least, when shackled together in a train, continuous in their bearings on each other. That is, their sills and floor timbers were all on a level and in a line, so if the cars were suddenly jammed together they met in such a way as to best resist the pressure, instead of folding up like an accordion. Bodies of these cars were about 32 inches from the rails, a height which presently was found too low. In raising the car bodies, mechanics of the day encountered a major difficulty: the couplings on the new cars would be higher than those on the old, and the railroads were certainly not going to throw away their previous rolling stock before it was worn out.

However, some of the leading car men met and devised what they thought was a bright solution to the problem. They placed the couplings and drawheads on the new cars below the line of the sills. This necessitated putting the platform which sustained the coupling also beneath the sills; and in doing that, the master minds disregarded a fundamental law of mechanics. As a consequence, when trains stopped abruptly and there was great, sudden pressure on the car ends, the line of resistance was no longer the line of utmost strength. Hence the ghastly telescoping of cars that made collisions even more hideous! For thirty long years, nearly half of a normal lifetime, this blunder remained uncorrected.

At length the railroads, prodded by indignant citizens, decided to do something about this galaxy of couplers which was bringing about so many disasters and unfavorable publicity. The companies were losing many thousands of dollars in lawsuits over accidents, plus heavy expenses for hospital bills of victims, not to mention undertaker bills. On top of all this were the cost of providing large assortments of links and pins and the losses occasioned by crews taking several hours to make



1. Safford Drawbar (Easy on the Fingers)
2. A Spring-pocket or Strap Drawbar

couplings that should have been done in minutes. So the car builders of all major American roads came together to try and solve the problem, their first step being formation of the National Master Car Builders' Association.

The organization, formed in 1867, ten years after the Des Jardines Canal wreck, set standard dimensions for coupling devices, to avoid such inconvenience in interchange of cars between railroads. A committee fixed 33 inches as the standard height from top of rail to center line of drawbar, but allowed a variation of three inches between loaded and empty cars. After years spent in testing various types of drawbars, the committee recommended that a drawbar 28 inches long be adopted, and this was done in 1879.

The roads were then using cast-iron for drawbars because of its cheapness, but the Master Car Builders favored wrought-iron for its extra strength. As a concession to the railroaders, they made either material acceptable. Adoption of this standard did not immediately do away with the need for companies to carry 42 styles of drawbars for emergencies. On the contrary, the managements spread the changing of coupling devices on freight and passenger cars over a period of ten years.

THE deadwood buffers placed on cars to prevent the springs from severe compression shocks also annoyed the Committee on Accidents to Trainmen. In 1879 this group protested to the Master Car Builders that, after examining the rolling stock on five different roads, it had found the distance between buffers ranging from twelve and a half inches on one line to 28 on another.

"When two cars come together," the committee reported, "unless their blocks are a uniform distance apart, they are of no value in saving the springs. Imagine the jeopardy in which a man is placed who goes between two cars to make a coupling, when on one car are blocks 28 inches between and on the other car only twelve and a half inches. And then some of these deadwoods are 15 inches up and down and 17 inches between. How is a man to make a coupling with such barriers placed before him, unless at the risk of his limbs? There are but few railroad companies which now use double deadwoods; but when two such cars do come together the result is dangerous to the trainman."

The only answer to the problem, the only sure way to prevent additional thousands of railroaders from being maimed while coupling cars, seemed to be some form of automatic coupler. As a matter of fact, as far back as July 31st, 1847, ten years before the Des Jardines catastrophe, the necessity for such a device was recognized, when the Baltimore *Clipper* published a description of an automatic coupling device patented by one A. G. Heckrate. The device consisted of the ordinary coupling box, a flat roller, a tumbler similar to that of a lock gun, a dog, and a spring attached, all made of cast-iron except the spring.

"It is self acting," said the paper, "so that two cars can be coupled without the danger usually attendant on the old plan. The machine has sufficient play for any curve or angle of a switch, but in the case of a car running off the track it instantly detaches all the cars behind, and any car or number of cars can be detached at pleasure by a slight pressure on the spring by the hand or foot, without stopping or impeding the cars or locomotive in front. The expense of a machine is from $6 to $10, and it will no doubt supersede the old-fashioned bolts and chains. One was tried on the Washington Branch road (now B&O) and found to answer every purpose for which designed."

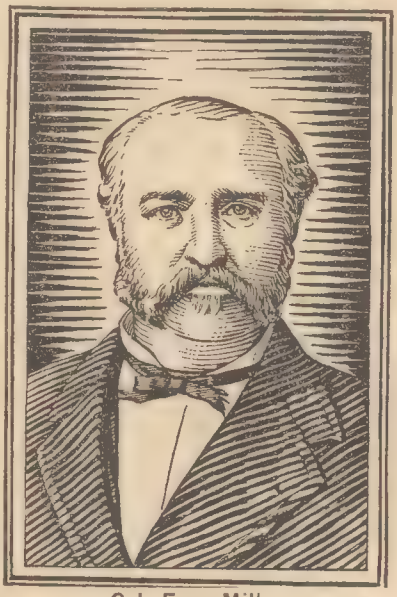
*Photo from Capt. Frederic Shaw*

**Lady-Railroadian Barbara Williams Decorates an Old Narrow-gage Coach at Last Year's Golden Gate Exposition**

Railroad officials could not have had such a high opinion of Heckrate's coupler as did the Baltimore *Clipper,* for it never attained universal use any more than a similar device patented in 1856 by D. A. Hopkins of Elmira, N. Y. Hopkins' coupler, which received a short trial on the Erie Railroad, consisted of a small piece supporting the pin until the link entered the drawbar. The pin was to be placed in position by hand, resting with the lower end supported by the spring piece. As the cars struck the link, previously placed in the drawhead of the other car, they thrust back the spring piece, allowing the pin to drop in place.

Many other such devices were invented, all of them serious efforts to meet a vital need, but the first automatic car coupler that would really couple cars was invented by Col. Ezra Miller. Ezra was born in Bergen County, New Jersey, in 1812, and lived in New York State much of his life. He rode behind the famous locomotive *De Witt Clinton* on the Mohawk & Hudson Railroad and was a passenger on other pioneer trains. Although he was no mechanical engineer,

Miller's observant eye noticed how the platforms of the crude little passenger cars were placed, with couplers and buffers below the car sills which form the line of most resistance to longitudinal shock. He was inconvenienced several times by the knocking back and forth of the loosely connected passenger coaches, which prevented him from crossing from one car to another except at the risk of life.



Col. Ezra Miller

Miller realized that a partial solution to this problem would result from an arrangement whereby extended couplings passed under opposing car floors, thus holding them in firmer vertical alignment. So the Colonel went to work and turned out just such a device.

EVERY old-time rail remembers the famous Miller "hook." Patented March 31st, 1863, during the Civil War, this coupler was simplicity itself. It consisted of a drawbar terminating in a right-angled hook opening toward the left when facing the car. Thus the couplers on two cars coming together were always in a position to engage. A spring forced the drawbar to the center, while a guide opposite the hook insured positive action. The end of the drawbar was pointed like a spear hook, but was later rounded somewhat, so the two hooks could slide past each other more easily.

In addition, the point of the hook had a pocket to receive a link when coupling with one of the old link-and-pin cars, and a hole for a pin. In making a coupling with a link, the latter was always placed in the hook regardless of whether the car to which it was attached was stationary or being moved back by an engine, for to attempt to guide the link into the hook was likely to bring about one of the accidents the Miller coupler was meant to prevent.

Uncoupling the Miller hook was accomplished by throwing a lever, located on the platform railing, attached to the hook with a chain which pulled the hooks apart. Sometimes the operation of coupling was so easy that the lever would be thrown by the movement of the train, thus uncoupling the cars. At other times it required the concerted efforts of the whole train crew to work the lever.

A number of years later, Colonel Miller devised a combination of platform, coupler and buffer on a line with the car sills, which brought the buffers in close contact with each other when the cars were coupled. The Miller platform and buffer, as the invention was called, brought the cars so close together that passengers could step from one to another without danger of falling between. In addition, the coupling hooks extended under the car bodies served to keep the car bodies from rising one above the other in the event of a collision.

The Miller coupling far surpassed everything else invented up to its time. However, there was much controversy

*Photo by M. C. Poor, 4883½ N. Paulina St, Chicago, Ill.*

**Due to Varying Centerline Locations of Narrow- and Standard-gage Cars When Operating on Double-gage Track, This Denver & Rio Grande Western Switching Engine Has Two Janney Couplers Fore and Aft. They Are Also at Different Heights Above the Rails**

before its use became widely established. As late as 1876 the Pennsylvania Railroad's exhibition train at the Centennial Exposition in Philadelphia had outmoded link-and-pin couplings, albeit with wooden wedges driven into the links to take up the slack—this on "the Standard Railroad of the World"! But eventually the Miller platform, buffer and coupler was used on passenger cars of all roads, although it was considered too costly for freight cars.

Only two important lines refused to recognize the Miller hook. One of these, the Chicago & Alton, employed a platform coupler using two flat links —one long and one short—that coupled to a twin buckle tail bolt in the back end of each coupler. The other end of each link coupled with a round pin to the opposite coupler in the regular manner. This device, called the Blackstone coupler for T. B. Blackstone, President of the road, who invented it, was used from 1870 to 1885 on the C&A.

The second road that passed up the Miller platform and buffer was, as we have already hinted, the Pennsylvania. The only clue we have as to why the Pennsy refused to adopt this safety device was a remark made by A. W. Gibbs, then General Superintendent of Motive Power of that road, in reporting on the subject of couplers to the International Railway Congress in 1905.

"The Miller hook," he said, "came into very general use throughout the United States; and it is probable that had the owner of these patents been diplomatic in pushing its introduction, the type might have become universal for passenger equipment in America."

Mr. Gibbs didn't explain his reference to Miller's lack of diplomacy. Nevertheless, the Pennsy refused to avail itself of the Miller hook, and

began seeking a coupler for passenger equipment that would be at least as good. They were not long in contacting E. H. Janney, who had patented an automatic device.

Janney was another military man, having held a commission as major in the Confederate Army. However, the invention came to him while he was working as a drygoods clerk in Alexandria, Va., after the Civil War. Convinced of its worth, Janney immediately made several rough models, each better than the preceding ones. At last he made a model which worked well enough to satisfy the requirements of the Patent Office, and on April 21st, 1868, he hied himself to Washington to receive United States patent 77,046 for his first railroad car coupler.

THIS particular patent had several novel features and was described as having a link fastened at one end horizontally to a drawbar, which engaged the upper ends of an oscillating catch on the drawbar of the opposite car. In other words, it was a "jump up" type of link which coupled automatically when the two cars came together. The link was kept from rising and disengaging by a gravity latch. The latter in turn, was held in place by a movable bar. To uncouple, the bar was drawn aside and the link raised over the latch so the cars could part.

This coupler never went beyond the model stage, but Janney spent several years making improvements. On April 29th, 1873, he received a patent for another coupler, which differed radically from its predecessor. Janney's coupler was very closely related to the Miller hook. It consisted mainly of a rotating hook, as he called it, and what is now known as the "knuckle" in combination with a guard arm to cause the two couplers to be guided together in hooking and also to prevent them from lateral displacement when coupled.

This hook or knuckle was pivoted to an extension of the drawbar and rotated in a vertical plane. An upright lever resting in a slot in the top of the drawhead and pivoted at its lower end to form the lock to the knuckle. It was held in place by a spring. All that was necessary to uncouple the cars was to pull the lever back and allow the hook to rotate to open position. It was of simple construction and nearly foolproof—a big advance over most of the other so-called automatic couplers of the day. As Major Janney explained to the Pennsy's delighted brass hats:

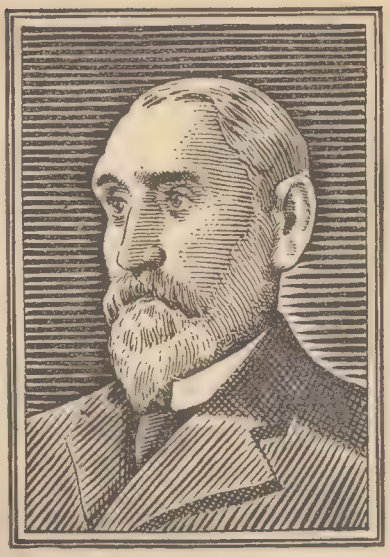
"It will couple readily under all circumstances if one of the hooks is open, but will not couple if both are closed; and it is adapted for use on cars of different heights."

The Janney coupler was first applied to passenger cars on the Pittsburgh, Fort Wayne & Chicago line of the Pennsy, under the direction of J. D. Laing. After giving the device an exhaustive four-year trial on its lines west of Pittsburgh, the Pennsylvania declared it standard for all the company's passenger equipment, soon afterward applying it also to their freight cars.

About then, Janney sold his patent rights to McConway, Torley & Co. of Pittsburgh (who were the sole manufacturers for a number of years). Then he retired to his farm at Alexandria, Va., a rich man. His fellow inventor, Colonel Miller, became a multi-millionaire and was elected to the New Jersey State Senate.

We now find the railroads entering the 1880's with several acceptable types of coupler on the market, and one very good device—the Janney—which had proved itself equal to any demands

that might be made on a coupler. You would think everything was rosy, no more crushed hands, no more expensive time lost hunting for links and pins to couple cars together. Not so, however. There were still thousands of old cars equipped with link-and-pin devices, and dozens of competing coupler manufacturers in the country, all of them managing to get some of their couplers installed on rolling stock.

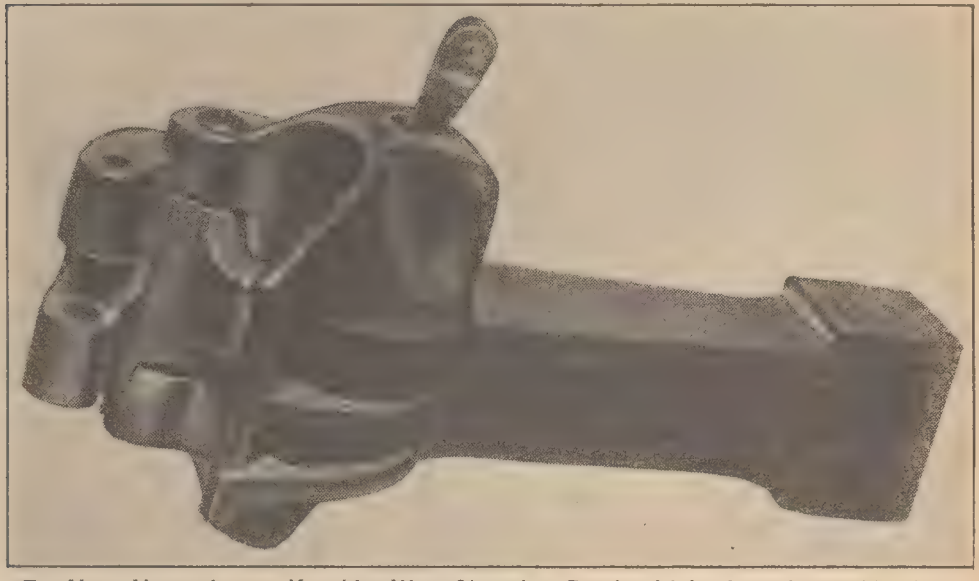


Major E. H. Janney

In fact, in 1880, the Province of Ontario, Canada, held a public hearing on the subject of accidents to trainmen and gathered a lot of information about alleged automatic couplers. The State of Connecticut held a similar hearing November 29th, 1881. As a result of the latter, Connecticut enacted a law requiring all cars built after a specified date to be equipped with automatic couplers of a type approved by the state's Railroad Commission.

Massachusetts soon followed suit; her legislators approved five varieties of automatic couplers. Railroads running trains in the Bay State tried out all five devices between them, only to find that not one of the five would couple with the other four!

Michigan aggravated the problem by enacting an automatic coupling law and approved *seven* varieties, none of which would couple with each other! Several other states passed laws which made



For Many Years, Janney Knuckles Were Slotted to Receive Links, Interchangeably. During That Period, Link and Pin Couplings Were Referred to as Jacks, and a Maimed Hand Resulting from a Joint Coupling Was a "Jack and Jenny"

the situation even worse. Thirty-nine different types of coupler were being tried out in service on 8,510 cars in 1889, and each of the 39 devices refused to couple with any of the remaining thirty-eight!

The bewildered public demanded to know why the railroads didn't voluntarily comply with the laws by slapping automatic couplers on their cars, regardless of whether they would couple with other cars or not.

SEEKING a solution to the problem, the Master Car Builders Association planned to hold an exhaustive discussion on the subject at its yearly convention at Old Point Comfort in June, 1885. Railroad commissioners from each state were invited to attend, but these officials showed their genuine sympathy for the railroads' predicament by staying away in droves.

Therefore, the Association members decided on their own initiative to hold a series of systematic tests of car-coupling devices at Buffalo in September of that year. All manufacturers of couplers were invited to participate. Rules for the contest were that each kind of coupler submitted had to be fitted to both ends of two cars and to be subjected to tests in coupling on tangents and on curves of twenty degrees. No models were eligible. Entries were to be accompanied by drawings and specifications, with detailed weight and price of each part, plus the cost of applying the couplers to cars already equipped with link-and-pin devices. Inflexible requirements were that the drawbar should be a self-coupler, avoiding the use of links and pins; second, the arrangement for buffing should be very strong, and, third, it must be able to couple with the drawbars then in use.

Of the 42 couplers entered for the competition, nine had loose links with pin supporters. Ten had loose links with a catch, or dog, substituted for the pin; while two had fixed links. There were three loose coupling bars, and a dozen vertical plane couplers, five of which operated by gravity, four by a spring; while three were guided by a "boot" like that on the Miller hook.

Tests started September 15th, 1885, in the Hamburg Street yard of the New York, Lake Erie & Western. Cars equipped with the test couplers differed as much as five inches in the height of the drawbar from the rails, while the distance between car bodies varied from 19 to 44 inches. Each car had to pass four tests: First, coupling with the ordinary link-and-pin—an important requirement, since the railroads could not refit all their cars overnight. Second, coupling with its own kind at slow speed. Third, coupling with its own kind sharply. Fourth, could it be set *not* to couple when cars were bumped together abruptly?

For two days the couplings were put through their paces. One of the drawbars, snapped in switching, was ruled out before it received a trial. Another was badly broken during tests, while a third smashed a draft bolt. A fourth uncoupled repeatedly on a curve while switching. The pin fell out of a fifth, which was also slow in coupling, even at minimum speed. And so it went. One entry coupled so magnificently that a pinch bar had to be used to uncouple it.

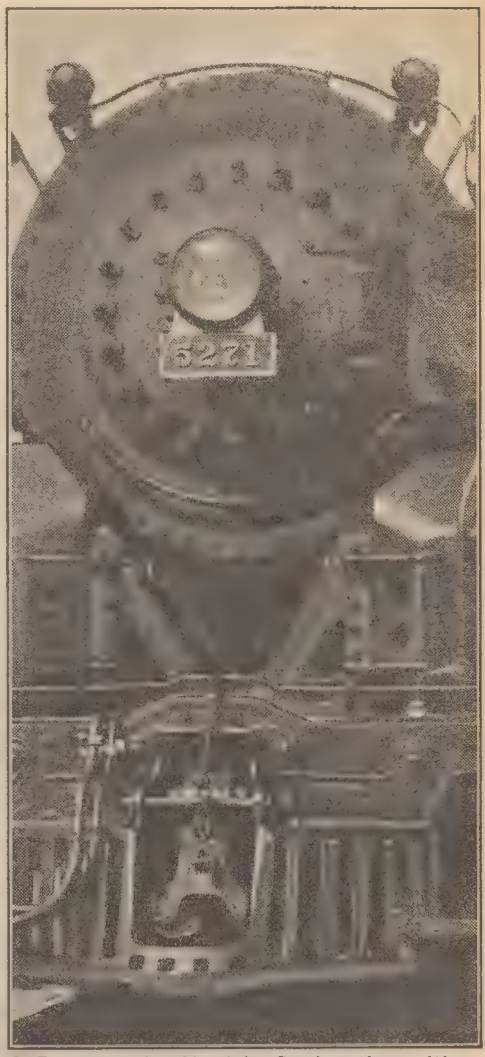
When the tests were completed, the executive committee retired into conclave, emerging after several hours with the decision that six vertical plane couplers and six of the link type would be given further trial in service. Despite all this fanfare, the coupling problem

was not much closer to solution than before the trials.

At length in 1887, thirty years after the Des Jardines disaster, the Master Car Builders had narrowed their choice down to three couplers, the Janney, the Dowling and the Thurmond. All were of the vertical plane variety. They were inclined to favor the Janney, believing that the principle of contact of surfaces of vertical cylinders embodied in the Janney coupler afforded the best connection upon both curves and tangents for cars with variation in the height of couplers.

However, they would not consider adopting Janney's device until its manufacturers waived patent rights to its inside contours so that other concerns might make couplers which would link with the Janney. This concession McConway, Torley & Co. made in 1888. Thereupon their device was definitely selected as the nation's standard coupler.

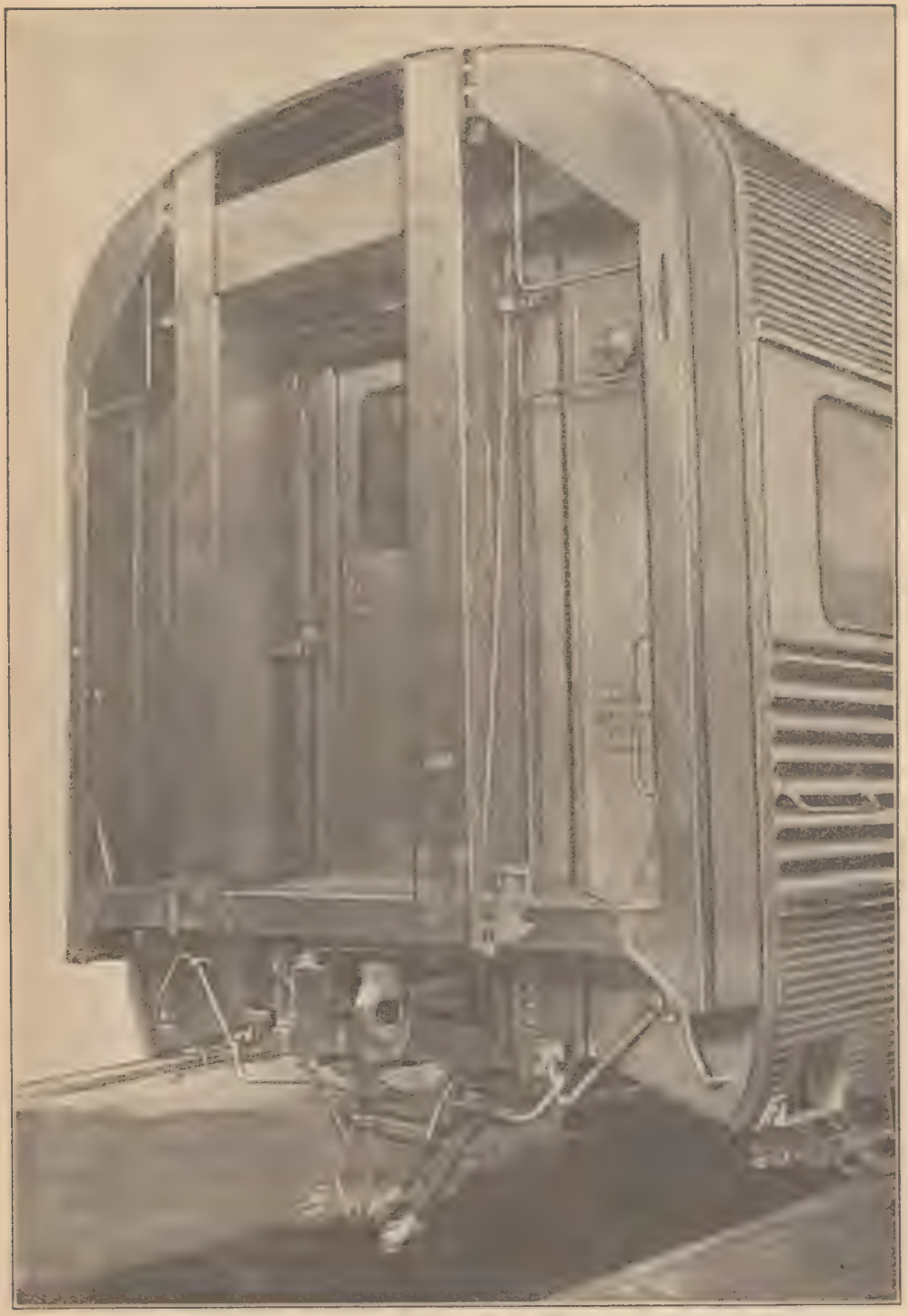
But all American railways did not immediately discard the outmoded couplers and adopt Janney's. Not by a jugfull. After the M.C.B. had made its decision, they promptly proceeded to forget about it. The matter might never have progressed any farther except for a crusading Congregationalist minister, the Rev. Lorenzo S. Coffin.




A Drop-coupler Used in Conjunction with a Commonwealth Cast Steel Pilot

MR. COFFIN became right-of-way agent for the Fort Dodge & Des Moines Railroad. He was so popular that the FD&DM obtained his appointment as one of Iowa's state railroad commissioners. He might have been an ordinary commissioner and never accomplished anything of national importance, but for the fact that one day, in preference to waiting several hours for a passenger train, he chose to ride in the caboose of a freight train. During the trip the train stopped and the hind brakeman, with whom Coffin had become good friends, got out to make a coupling. The commissioner watched him, and to his horror saw the trainman slip a trifle and get his hand horribly mangled between the draw-bars.

This experience made such an impression on Lorenzo Coffin that he rode around in freight trains quite a bit, learning all he could about the hazards



A Tight Lock Coupler Applied to a Budd-built Diner. The Inner Surface of the Tapered "Lock" (Right) Presses Firmly Against the Tail of the Opposing Coupler's Knuckle When It Closes, Taking Up All Slack

of railroading. What he discovered led him to draft a bill requiring all cars to be equipped with automatic couplers, power brakes, and other safety devices. He submitted his "Safety Appliance Act" to the Iowa State Legislature, which duly enacted it into law. Still Mr. Coffin was not satisfied. He knew that trainmen in the other states would go right on losing their hands and endangering their lives until there was a national law on the subject.

Accordingly, the crusader wrote letters to newspapers and made scores of public speeches, seeking everywhere to arouse support in his campaign of safety for railroad men. Then he took his bill down to Washington, where he labored throughout every session of Congress for four years for its enactment.

Finally, Coffin's years of struggle ended in success when, on March 3rd, 1893, President Harrison signed the national Safety Appliance Act, which provided that " . . . on and after January 1, 1898, it shall be unlawful for any common carrier to haul, or permit to be hauled, or used on its line, any car used in moving interstate traffic not equipped with couplers, coupling automatically by impact, and which can be coupled without the necessity of men going between the ends of the cars."

One question remaining to be solved was the material of which the couplers should be made. In 1894, the year of the Pullman Strike, the M. C. B. A. held tests at Altoona, Pa., trying 27 makes of couplers, 13 of which were cast-steel, the remaining 14 malleable cast-iron. The committee decided that the strongest coupler was undoubtedly steel, and Janney devices began to manufacture from steel by the thousands for use on American cars.

The coupler as adopted in 1888 was of nearly the same dimensions as the old style link-and-pin drawbar. It differed radically in construction of the head but retained the same length, and the thickness of the shank was five by five inches. This soon proved to be too light, with the increasing number of cars in a train, so in 1904 the shank was enlarged to five by seven.

Again, in 1914, the shank was made an inch thicker and an inch wider.

This standard coupler was designated as Type D, and was made with a slot at the rear end for a solid key attachment, obviating the necessity for a riveted draft gear yoke such as had been commonly used.

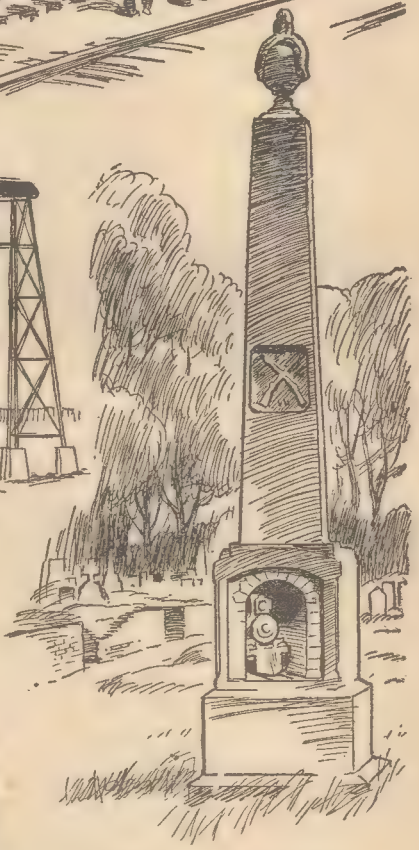
In 1919, at the close of World War No. 1, the Master Car Builders Association was absorbed into the Association of American Railroads, but its usefulness continued. The ever increasing weight of cars and speed of trains called for additional changes in Type D from time to time. Eventually improvements were made and a modified design was adopted in October, 1931, under the title of Type E standard coupler. Type D embodied a top-operated knuckle lock which, due to its size, was rather hard to work—a drawback remedied by the new type.

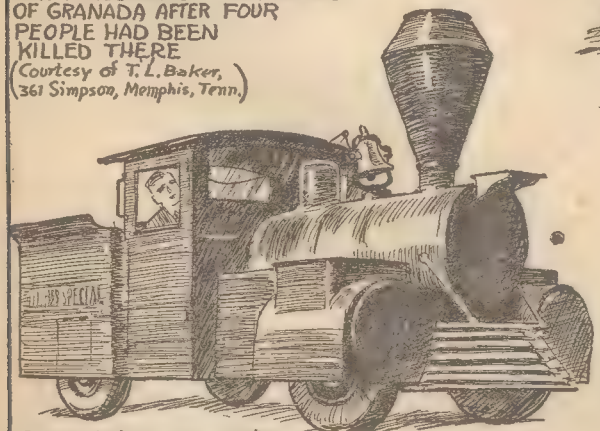
As improvements in train construction and luxury are put into effect, the coupler is being constantly modernized to keep up with its new uses. On March 1st, 1940, the progressive A. A. R. recommended for passenger equipment a tight-lock coupler which holds the cars together even more closely and reduces side-sway to a marked degree.

Gone forever on common-carrier roads of the United States and Canada is the menace from the old "Lincoln pin," now embedded in boomer lore as the symbol of dangerous yesterdays.

# ALONG THE

UNIQUE SIGNAL 1.4 MILES NORTH OF GRANADA, MISS., WHERE THE ILLINOIS CENTRAL CROSSES HIGHWAY ROUTE 7. THE STRUCTURE WAS DESIGNED BY W.A. BILLUPS OF GRANADA AFTER FOUR PEOPLE HAD BEEN KILLED THERE
(Courtesy of T. L. Baker, 361 Simpson, Memphis, Tenn.)





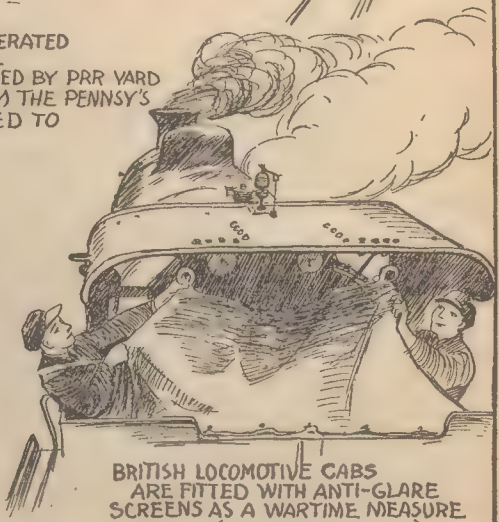
THIS MASCOT WAS PRESENTED TO PURDUE UNIVERSITY, LAFAYETTE, IND., LARGELY BY W. W. WINTERROWD, HEAD OF THE ALUMNI ASS'N THERE AND EXECUTIVE VICE PRESIDENT OF BALDWIN LOCOMOTIVE WORKS

HEROIC HOGGER: SHAFT IN SACRAMENTO, CALIF., CEMETERY IN MEMORY OF ENGR. WM. C. BROWN, ERECTED BY 1ST INF., N.G.C., WHOSE LIVES HE SAVED ON OAKLAND WHARF BY SACRIFICING HIS OWN. BILL DIED AT THE THROTTLE SEPT. 26, 1880, AGED 23 YEARS
(Drawn from photo by C.T. Steeb)

# IRON PIKE

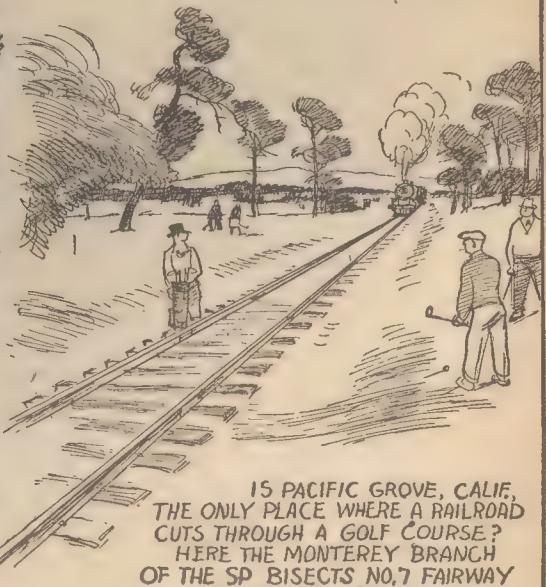
by JOE EASLEY

UNLIKE THE SNOW TRAINS OPERATED FOR WINTER SPORT FANS, THIS ONE CONSISTED OF 58 CARLOADS OF SNOW PULLED BY PRR YARD GOAT NO. 6556. CARGO WAS GATHERED FROM THE PENNSY'S RIGHT-OF-WAY IN CHICAGO AND WAS HAULED TO CLARK, IND., FOR DUMPING.
(Thanks to Lois M. Drueke, Skokie, ILL.)



BRITISH LOCOMOTIVE CABS ARE FITTED WITH ANTI-GLARE SCREENS AS A WARTIME MEASURE.
(From B&O Magazine)

ENTRANCE TO PARTLY-BUILT TUNNEL ON THE OLD BLUE RIDGE RAILROAD NEAR CLAYTON, GA. THIS BORE WAS ABANDONED ABOUT 1863 WHEN THE SUPPLY OF SLAVE LABOR CEASED. IF COMPLETED, IT WOULD HAVE BEEN ABOUT FOUR MILES LONG. WHO CAN SUPPY DETAILS?
(From Paul C. Baker, 1631 W. Chase, Chicago)



IS PACIFIC GROVE, CALIF, THE ONLY PLACE WHERE A RAILROAD CUTS THROUGH A GOLF COURSE? HERE THE MONTEREY BRANCH OF THE SP BISECTS NO.7 FAIRWAY ON THE MUNICIPAL LINKS
(Thanks to Josiah F. Roberts, Pacific Grove)

# Four-Track Stuff

## *The Timecard Said Four Hours, but Even Hotshots Don't Always Run on Schedule*

By JOHN JOHNS

New York Central Conductor

OU could see from the sag in Tommy Moran's normally erect six-foot figure that he was worried. The engineer's broad shoulders were hunched the least bit, while his curly black hair was obviously in need of combing, as if he had been running his fingers through it. His husky fireman, Jack Halsey, eyed the big fellow curiously but said nothing. The two of them were seated before a nicked and food-stained table in the crew room of the Buffalo roundhouse, eating their lunch. A dozen men from various divisions lolled about the room, eating, reading newspapers, engaged in desultory conversation, or just doing noth-

ing. The room itself was slightly hazy with engine smoke that drifted in from the noisy yard just outside the windows.

Tommy nibbled at his food, with no sign of appetite. "What are yuh looking at me that way for?" he demanded suddenly, pushing aside a half-eaten rye cheese sandwich.

"What way?" Jack Halsey grinned and took a swig of coffee from his jug. "Say, what's wrong with you this beautiful spring morning?"

The engineer rested his chin on the palm of a horny hand. "I'm on pins and needles, Jack. Did yuh ever try to steel yourself to ask for something and at the same time be afraid of being turned down?"

"Oh, sure. I want to ask that green-eyed Jane behind the news-stand for a date, but I ain't got the nerve. It's a problem, all right."

Tommy filled his pipe, struck a match to it, and blew smoke thoughtfully into the air. "You see, it's this way, fireman: I got a case on Flora Hickles—"

"Not Old Iceberg's daughter?"

"Yeah, the same. Daughter of our Superintendent of Motive Power. Well, I was figuring on taking her to the Brotherhood Ball in Salanda tonight, and if everything works out okay I—that is, I'm gonna ask her—Well, she's

kinda sweet on me, and tonight it's now or never. Yuh see what a spot I'm in," he finished lamely.

Jack almost choked on his coffee. He coughed and spluttered. "So you want advice, heh? Why don't you ask John J. Anthony on the Ironized Yeast hour?"

"Don't be a dope, Jack," the engineer retorted fiercely. "I'm serious as hell. I said the ball was tonight and I'm taking Flora whether the old man likes it or not."

"Well, he won't like it," the fireman rumbled positively. "You know damn well he won't. If it was anybody else, now, it wouldn't be so bad. But Iceberg Hickles—"

"Yes, Iceberg Hickles. I know he's got high-falutin' ideas about that girl of his. Nobody is good enough for her—nobody except maybe an official of the New York Central Railroad."

"You know that, and yet you make a date to take Flora to the ball, and drag me in on it with Flora's girl friend? Well, for an eagle-eye, you ain't very bright. If I had known it was Flora you had in mind—"

"Oh, don't play dumb!" Tommy burst out with annoyance. "Any call-boy'll tell yuh I've been keeping company with Flora Hickles for months. Why, it's all over the Buffalo Division!"

"Sure, sure, fella! Keep your shirt on. What I mean is, it's one thing to step out with a cutie and quite another proposition to buy her a ring. You said you was taking her to the ball tonight to pop the question. Okay. But if you want to learn something, the boss has picked out that second-trick yardmaster at West Creek Junction for a son-in-law. Iceberg has it all figured out. He thinks Duke's Mixture has the right connections and is going some place on this four-track railroad."

"Marmeduke Dilley?"

"You said it, mister. You and me ain't in that boy's class. The best we can hope to wind up with is a regular run on the *Century*. But Brother Marmelade, or whatever his name is, will probably be dashing up and down the pike in a brass-railed private car—"

"The hell with Marmeduke Dilley!" Tommy broke in defiantly. "And Hickles, too! Boss or no boss, he's not dictating my private life. We're not in Germany. So long as I do my work all right, no motive-power official has anything on me. It's Flora I'm worried about. Suppose she says no?"

Jack Halsey shook his head with mock sympathy. "You got me stopped there, pal. All I can say is that other fellows have been turned down, and kept on living just the same."

The engineer's dark eyebrows came together in a frown. "I thought yuh were gonna spring that old gag about plenty of fish in the sea. Well, it don't interest me. I've already made the date with Flora and I'm seeing it through. If I don't get her answer tonight I'm sunk. There's no telling what that guy Dilley will cook up."

"Okay with me, brother," said the fireman, his lean, hard face beaming. "I don't mind taking a chance on a blind date. If we don't keep it, I ain't the loser. But what about you? Suppose something happens to Number 40 and we don't get in on time? And even if she does roll into Salanda on the advertised, we still have less than an hour to get washed and dolled up to meet Flora and her lady friend."

"Leave that to me, Jack," the engineer spoke confidently. "Forty is reported on time on the Lines West. Give me half a break, and she'll roll along like a *blitzkrieg*."

A VOICE called out, "Hey, Moran!" and Tommy and his fireman turned to see Fargo, the overweight engine dispatcher, running and puffing toward them.

"Moran," said the newcomer, "I want you and Halsey for BNY-8. I lined up a crew comin' up on a light engine, but they've fallen down on me. Hurry, you've just got time to make it! The train is in."

"Hold on a minute, bud!" Tommy protested, removing his pipe and glancing out the window at the redball freight, loaded with fresh beef and vegetables, cooling its heels in the yard.

"Yeah, nothing doing," Jack backed him up. "We're freight men. We're regular passenger men on the Salanda extra list and we're going out on Number 40."

"Shut up!" Fargo bawled. "You'll go where you're ordered. You're only the fireman. Every time you work with Tommy Moran, you do a lot of beefin'. When he isn't teamed up with you there's not a peep out of him."

"Listen, Fargo," Tommy explained patiently, "I'd like to help you, but I can't take that freight today. There's no need of arguing. I just can't take it."

The engine dispatcher was not prepared for a blunt refusal. He stepped back a pace; then he recovered enough to blurt out:

"What d'ya mean, you can't take it? What's goin' to stop you?"

Tommy smiled condescendingly. "Well, you see, Jack and I have tickets for the Brotherhood Ball in Salanda tonight. Number Forty will get us there just in time. If it wasn't so important, I wouldn't mind accommodating you."

"Is that so!" Fargo barked. "Well, get this, wise guys! I have a whole hour to find a crew for Number 40, but I haven't a minute to waste on diggin' one up for that hotshot baby. Either you fellows get started with BNY-8 or I'll stick every minute of the delay right onto you. And when the report is turned into the superintendent, you'll be given time to go to all kinds of dances."

Without waiting for a reply, Fargo turned on his heel and bolted through the door to his office.

Jack made a move as though to follow, but instead he wheeled about and growled: "That dirty bum's dumped it right in our laps. He pulls a boner and wants us to pay for it."

"I guess he's got us in a corner," the engineer said gloomily. "We've no choice but to take it and go."

"Why should we, Tommy? We have a regular return movement."

Tommy shook his head. "I'm thinking about answering for the delay. Whether Fargo fell down or not, this is an emergency and he's got us. The only thing to do is take the train and fight it out later."

The fireman ruminated over the logic of the words, and then banged his fist on the greasy table. "So he's got us! All right, wait till you see the grievance I slip into the lodge. After the Brotherhood gets through with this case, that dumb-bell won't pull another such trick."

CROSSING the tracks to the waiting freight train, Jack stopped abruptly and clutched his companion's arm.

"Hey, listen! What about that ball tonight? We barely had time to make it on Number 40. Now we're going east on a jigger and—"

The runner paused with one foot on the engine steps and rubbed his chin uneasily and then his keen gray eyes brightened. "Oh, we're leaving an hour

earlier and the BNY-8 is fast. We'll get there on time."

Jack did not appear to be reassured as he followed Tommy up to the cab of the 2995, but he lost no time plunging into work. The hostler had the engine hot and had coupled her to the long train of white and yellow reefers. While Jack was examining the automatic stoker and building up his fire, Tommy climbed down to make a round with his long-necked oilcan. Just as he finished, Conductor Boyle, a plump and red-faced man with gimlet eyes, came breathlessly over from the yard office.

"Rotten deal you fellows drew," he chuckled, toying with his watch chain. "Bet a dollar we don't pull into Salanda before midnight. Never seen it to fail. Try and get some place on a four-track railroad when you want to!"

The big engineer glared at him. "Why won't we get in? It's only one o'clock now. We're scheduled to run the division in four hours."

Jack Halsey, shutting off the stoker and cutting the blower down, draped himself in the gangway to listen in on the badinage. He saw the hefty conductor bite off a chew of Navy tobacco and shake his head, and heard him say:

"Yep, four hours. That's what the timecard says. But you know what these reefers are when you aim to get over the road with 'em. Nothin' goes right. An' four hours ain't too much when things start goin' wrong. Like I said before—"

"Well, don't say it again, Crepe-Hanger!" Jack interrupted. "Nobody asked you to make a speech."

Tommy started to speak, but bit his lip nervously. He knew the old skipper was speaking the truth. The O.R.C. aimed a stream of tobacco juice at a scrap of paper on the ground, looked up at the fireman through white bushy eyebrows, and said testily:

"So that's the thanks I get fer givin' you boys the facts of life, eh? Figurin' and talkin' as if you was settin' out with a handful of varnished wagons. Well, you'll soon know just what it means to be pullin' eighty loaded reefers."

"Let's cut the comedy," Tommy pleaded. "Boyle, what do yuh say about starting for the palace so we won't have to lose time giving yuh a chance to grab it on the fly?"

The conductor mumbled something that did not make sense; then he wheeled and started back toward the caboose. The engineer swung up to the cab. Sliding into his seat, he remarked:

"The brains don't seem very optimistic about us getting in on time."

"He's like all conductors," was Jack's rejoinder. "They think that because they got to answer for everything, they have the weight of the world on their shoulders."

At that moment a car inspector gave the signal to test air brakes. After Tommy had applied and released the brakes, a helper engine coupled onto the caboose. And then the highball! Tommy answered with two blasts of the whistle, which also acted as a signal to the tower that they were ready to leave town.

The train moved slowly down the lead toward the tower and yard-limit board. "Happy Mike" Fowler, the lanky head-end brakeman, grabbed the engine steps and pulled himself into the cab.

"Oh, boy! What a break!" he greeted them. "I phoned the tower to remind the dispatcher that we had a passenger crew pullin' us, and to give us a shot. And the tower man said, sure, he knew, and he was puttin' us out on the high iron."

"All we want is green signals and a clear track," said the fireman.

Tommy Moran, his eyes on the signal mast ahead, exclaimed: "There it goes. We got it!"

The men looked out window and gangway to see the middle arm on the mast turn to green, indicating not only a clear block, but a route across to Track 2, the high-iron passenger road.

THE Buffalo Division consists of 155 miles of four-tracked and rock-ballasted main line. Equipped with train control and automatic block signals, it is one of the most modern stretches of high-speed railroad in the world. Tracks are arranged and used in the following manner: Number 4 is the eastbound freight track, Number 2 the eastbound passenger, Number 1 the westbound passenger, and Number 3 the westbound freight. Side by side they are: 4, 2, 1 and 3.

Redball freight trains, thundering along at forty miles or more an hour, use the passenger tracks until they are just ahead of a first-class train. With the faster train closing in, a signal tower switches them to Track 3 or 4, depending on the direction, often with less than ten minutes' clearance.

Engineer Moran was elated to find his train routed on track 2. It was a good omen. He had a margin of better than an hour on the nearest passenger train following him. With luck, he could keep ahead of it right into Salanda—Salanda, eastern end of the division, his home terminal, where the Brotherhood Ball was taking place that night.

The huge Mohawk-type freight-hauler barked up the grade out of Buffalo. Passing West Creek Junction, Tommy observed a familiar figure standing in the doorway of the yardmaster's office, and beckoned to Jack.

"Isn't that guy Duke's Mixture?"

The fireman nodded. "It's him, all right? And it looks like he's dressed up. This ain't Sunday."

Tommy offered: "Maybe Mr. Dilley is going down to Salanda to the ball."

The fireman whistled. "Sure, that's it. I'll bet he's gonna ride down on Number 40. Can you beat it?"

Tommy's brow clouded. "Jack," he said, "I should have taken the day off. If we're late, it's just too bad. Flora would never give me another chance."

"This is no time to worry," Jack encouraged. "Just tell yourself we're going to get in, we got to get in. See?"

But the solemn expression on the big fellow's face did not brighten. Ahead lay more than a hundred miles of travel. Behind were eighty reefers loaded with meat and vegetables enroute to market, swaying and clanking. He opened the throttle another notch.

When the 2995 dipped over the hill at Aurora City, and the helper was cut off, the freight-hauler emerged on her own and really started traveling. The needle on the speedometer climbed—40, 50, 55. It was hovering over the 58 mark when Tommy whistled for Southbridge, thirty miles east from Buffalo. And then the powerful engine began to buck and tug. Speed dropped, the thundering exhaust dwindled to a few loud barks, and then, like a giant giving up, the 2995 emitted a few more coughs and wearily sighed to a stop.

Jack shut off the stoker, dashed across the cab to Tommy, and asked, "What's wrong?"

"I don't know, except that the air went on," replied the engineer, his hard gray eyes on the gages. "Guess we pulled a lung or something. The pressure doesn't come up. That would have to happen today," he complained.

"Trouble with a capital T," growled Happy Mike Fowler, grabbing a red flag and sliding down the gangway. "Call me in if everything is okay," he shouted over his shoulder as he hurried ahead of the freight to stop westbound trains in the event that the cars of his train had buckled over and across the other tracks.

A few minutes later Conductor Boyle appeared, breathing heavily and mopping his brow.

"So you birds are goin' to a dance, eh?" he said glumly. "Well, let me slip you some bad news. We had a brake stickin' on the rear and I had to pull the wind. That stretched 'em so that we musta broke a knuckle, and in breakin' a knuckle they parted sweet and pretty and we lunged one. And what makes it funny is that the lung is out on the east end."

"That's great!" the fireman snapped. "Now when do we laugh?"

Tommy was stunned into silence.

Boyle went on: "Maybe you'll laugh when I tell you the rest of the story. The lunger is the forty-ninth car. If we get her set out and moving in less'n an hour, we'll be good."

"Is the rest of the train okay?" the engineer asked tonelessly.

Boyle let go a stream of tobacco juice and grunted. "Yep. Whistle Happy in and tell him to look back for signals. We'll pull it down and leave it on the freight-house spur behind the tower."

IT WAS almost an hour before the beefy Conductor Boyle and his rear brakeman had replaced the broken knuckle and had the cable attached to the crippled car. They signaled ahead and Tommy pulled down the half-mile to the tower. The signals were red for both eastbound tracks. Happy was about to head for the tower to ascertain the reason for holding the board against them when the signal on Track 4 turned green. It was the middle blade on the three-armed semaphore, indicating a train from Track 4 was to be routed over to Track 2.

"The dispatcher's run Number 40 around us!" Jack announced.

Even as he spoke, the passenger train whistled. The disconsolate engineer made no reply, but watched Number 40 slacken speed, take the switch in front of the tower, and cross over onto Track 2 ahead of his train. Then the passenger resumed speed and disappeared in the direction of Salanda.

"Well, there's where we should have been, but here's where we are," Jack said pleasantly.

The engineer scowled a little. "If we

Pepsi-Cola is made only by Pepsi-Cola Company, Long Island City, N. Y. Bottled locally by authorized bottlers.

hadn't had those sliding wheels and pulled that lung, Number 40 would never have seen us."

The crippled car, without a coupler, was finally set out on the siding, the head end came back to the rest of the train, and after a tense delay of eighty minutes the hotshot was again on its way. While his fireman was adjusting the stoker, Tommy studied his open-faced watch.

"Three thirty. We'll be late for the ball, but we can still make it."

"You'd better make it," was the fireman's rejoinder. "Duke's Mixture will be there."

In reply, Tommy gave the throttle a tug, the 2995 responded with another burst of speed, and soon they were rolling on passenger time.

"I'll follow Forty into Salanda," he called across the deck.

Mike Fowler leaned forward and mumbled into the fireman's ear: "Boastin', hear it? Every time a throttle-jerker starts tellin' what he's aiming to do, something goes wrong. Watch and see."

Jack glared. "Why don't you just shut up and ride?"

But the words were scarcely out of Happy's mouth when he looked toward the rear of his train, and cried:

"Hey! We got smoke back about fifteen wagons," he cried. "Looks like a hot one."

Tommy leaped anxiously out of his seat, crossed to the left-hand side, and peered back along his train.

The fireman, doing likewise, agreed: "We have a hotbox all right. That's too much smoke for brakes sticking."

"Well, there's no way to leave it here," broke in Happy. "The best thing we can do is to stop and cool her off and then run down to Swan River and pin on her."

"I guess that's about all we can do," the engineeer acquiesced, returning to his post.

The long redball train again slowed to a stop. Happy uncoiled his lanky form and dropped off to examine the overheated journal. The fireman grabbed a bucket off the engine, filled it from the injector overflow pipe, and carried it to Happy, who was pulling at the smoking packing in the hotbox.

"This ought to cool her off a little," he volunteered. "Then douse this valve oil on her. Is she cut?"

"No, she's not cut, Jack. Too bad we're not runnin' on Track 4. We could leave it at that short spur east of town. When you run on Tracks 1 and 2, boy, you're trapped. You can't make a move."

"We ain't supposed to get hotboxes and break in two," clipped the fireman.

The brakeman ignored that remark. "I'm goin' to the phone and let 'em know what's up before we get in more trouble for tyin' up the high iron."

He glanced about. A phone box was visible on a telegraph pole beside the track, a dozen car-lengths toward the rear. Hastening to the spot, Happy unlocked the box, jingled the crank, and called Swan River.

"Hell-o. Swan River? This is the head man on BNY-8," he began. "We're stopped here at Mineral Springs with a hot one. Yep, we gotta set it out. No, all it needs is a new brass. I'm coolin' it off, and then we're gonna pull down to you and leave it. Has the con called you yet? When he calls to learn why we stopped, give him the dope and tell him to toss off the bill. The car is SFRD 995599. Yep, we'll be movin' inside of five minutes."

Returning to the car with the overheated journal, Mike found the journal cooled and well oiled.

"That should last the five miles down

to Swan River," said the fireman. "Even looks as if it would run into Salanda."

Happy gave it a final poke with the toe of his shoe and agreed it should. "We'll stop at Swan River an' I'll look it over," he replied.

ROLLING into Swan River, Happy dropped off the engine and waited for the hotbox car to come up to him. The journal was again hot. Without hesitation, he motioned Tommy for slack on the pin, and cut behind the car. In ten minutes he had left the car and was back on the train.

"Out of town!" he said peremptorily, climbing into the cab.

Tommy nodded, his sharp eyes fixed on the signals ahead. He whistled for the board. But the signals remained red. "Better go call the tower," he ordered.

But just as the grumbling brakeman again started down the gangway, the bottom arm turned green.

"He's putting us over on Four," Jack Halsey called across the cab. "Guess the dispatcher is getting leery of us."

"Twenty-two is due; he wants us out of the way," replied the engineer. "He'll put us back on Two at Canton."

The fireman looked at his watch. Five thirty. And Salanda was still ninety miles away!

The Swan River track pans were located a mile east of the tower. Tommy did his best to get a roll on the train, when he hit them, in order to scoop water. But just as he was on the pan the engine began to slip. Three times he shut off because of spinning drivers. As they were nearing the end of the pan, Jack opened a cock on the tender.

"Up!" Tommy shouted.

The fireman raised the scoop, but no water trickled from the cock. "No dice."

The engineer shook his head. "Now we'll have to stop at Canton for water."

"Another twenty minutes shot to hell!" the head brakeman announced cheerfully.

"We gotta have water, don't we?" the fireman wanted to know.

"You have track pans to scoop it, haven't you? If they wanted you to stop for a drink at the plugs, they wouldn't put down track pans, would they?" The brakeman snickered. "Go on, I have all night. I ain't goin' anywhere."

"Aw, shut up!" Jack protested.

THE long shadows of evening were upon them when they stopped at the Canton water plug. Without uncoupling the engine, Tommy had spotted the tender directly under the plug. But Happy had correctly estimated the time they would lose. Moreover, the Canton tower had not crossed them over. The BNY-8 boomed out of town on Track 4.

Night closed in. The dancing beam of the electric headlight flooded the countryside with its white glare. Twenty miles east of Canton, the headlight swept aside the dark mantle of night and momentarily rested on the slab of stone that was the whistle board for Vickersville.

Tommy reached for the whistle lever. He blew two long and two short blasts, the call for the first grade-crossing entering the town from the west. Then he dug out his watch.

"Hey, Jack!" he called across the cab, raising his voice to be heard above the noise of the whirling drivers, the roar of the exhaust, and the racket of the stoker. "If our luck holds, we'll be in Salanda by nine. Dances are always late getting started. The girls will understand."

"Oh, sure!" Jack replied cynically.

For a few busy moments, intent on their work, neither man spoke. And then:

"I'm going to that ball tonight if—" Tommy did not finish. He pushed in the throttle and cried, "Yellow!"

The fireman repeated the signal, whirled around on his seatbox, extended head and shoulders from the window, and peered ahead. From behind a grove of trees where the tracks curved to the left he saw a bright yellow glow. He waited intently, aware what the light indicated.

The engine rolled onto the curve and the source of the glow was revealed. Even as he hoped to the last that the signal would change, he heard air escaping from the port as Tommy applied the brakes. The yellow was the light of the distant signal of the signal tower at Vickersville; and the next signal, the home board, would either be red for them to stop, or yellow on the middle for them to cross to Track 2.

Hand on the airbrake valve, Tommy impatiently counted the seconds. The home board around still another curve was invisible to him. He knew that Number 30, *The New York Limited*, was due in ten minutes on Track 2. With Salanda its first stop, the fast express was scheduled to pass through Vickersville at eighty miles an hour. Perhaps it was late. For a brief moment he indulged in wishful thinking. Yes, maybe Number 30 was late and the dispatcher was going to run BNY-8 ahead of it on Track 2.

But his hopes were soon dashed. When the home board came into view he saw it was red for them to stop. As they crawled up to the signal, Jack shut off the stoker, cut down on the blower, and crossed the cab to the engineer.

"I'd like to know what the hell's in the wind now, Tommy. We got no fire flying, or anything."

"Thirty is due," said the runner. "The delayer wants us to follow her."

Mike slid off the rear half of the fireman's seatbox, grabbed his white lantern, and grumbled:

"Yep, that's what you think. If you ask me, I'll say he wants us to back this jigger into some sidin' and tie up so we won't delay other trains that are gettin' over the road."

"Will you shut up?" Jack appealed.

The head brakeman assumed an air of martyrdom.

"Want me to suffer in silence, eh? Okay, I'll mosey up to the tower and get the dope. But it will be just what I told you—"

"Nertz to you!" the engineer bawled, as Mike descended to the ground. He watched the brakeman's light move in the direction of the tower. "Well, I guess it's good-bye dance and everything," he sighed rather hopelessly.

Then Jack developed a bright idea. "Why not send Flora a message? Explain what's happening. Tell her you'll be late and ask her to wait. The main idea is not to let her go to the ball without you."

The big engineer rumpled his curly hair again. Then he said: "Flora's been planning a long time to go to that affair. You know how girls are. Bought a pretty new dress and everything. When I don't show up, she'll be mad enough to go on without me, especially since she's got a girl friend as company."

"If she goes to the ball," predicted the fireman, "sure as hell she'll bump into Duke's Mixture. You can bank on that."

A SERIES of long whistle blasts screamed through the night. Jack stopped talking and listened. Again

the whistles. He reached for his watch.

"That's Number 30 blowing for town," he said. "The mighty McNally sure is wheeling her tonight. He's four minutes ahead of the card."

"Mac is a fast runner." Tommy spoke like a man having no interest in what he was saying.

Jack Halsey went to the gangway to watch Number 30 pass. They could hear the mad, wild beat of its exhaust. The next instant the exhaust was silent. McNally had shut off. Tommy stirred. He turned in his seat and glanced out his window. Fire was flying from every wheel of the Limited. He blinked, looked more closely.

"Something's wrong!" he exclaimed. "Mac's gonna stop."

In the direction of the tower, he saw a green board showing for Number 30. No signal was stopping the train. Blower wound on tight, and smelling of hot grease and oil from hard-pressed brake shoes, the Limited ground to a stop with the panting Hudson type engine that hauled it directly opposite the 2995.

Tommy and his fireman peered into the cab of the panting passenger locomotive. They watched McNally leap off his seatbox, grab a torch, and poke it in the firebox. Blazing torch over his head, McNally bolted to the ground.

Following his movements with their eyes, the men in the cab of the 2995 saw him run to the front of the engine, climb the pilot, and examine the air pumps. Jack Halsey, standing in the gangway, moved his head close to Tommy and said:

"Something's wrong with the pumps. Listen to the way they're racing."

The engineer nodded, lighted a torch, and followed his companion to the ground to render whatever aid he could. They came upon McNally and Mac's fireman. Both were hard at work on governors of the pump.

"Can we help?" Tommy ventured.

McNally raised his blazing torch, looked searchingly at his fellow runner. Then he grunted:

"Cut off your engine, Big Boy! I am going to take her."

Tommy fell back a step and gasped: "You're going to take my engine? But why? What for?"

"What for? You hear these pumps racing, don't you?" McNally retorted. "The governor is stuck and my air pressure has gone haywire. I can't run with it that way, can I? And I can't lay out *The New York Limited* waiting for them to send me a relief engine, can I? This is a first-class train, fellow. You know the rules. I can take any engine I want to get over the road."


# Many Never Suspect Cause of Backaches

## This Old Treatment Often Brings Happy Relief

Many sufferers relieve nagging backache quickly, once they discover that the real cause of their trouble may be tired kidneys.

The kidneys are Nature's chief way of taking the excess acids and waste out of the blood. They help most people pass about 3 pints a day.

When disorder of kidney function permits poisonous matter to remain in your blood, it may cause nagging backache, rheumatic pains, leg pains, loss of pep and energy, getting up nights, swelling, puffiness under the eyes, headaches and dizziness. Frequent or scanty passages with smarting and burning sometimes shows there is something wrong with your kidneys or bladder.

Don't wait! Ask your druggist for Doan's Pills, used successfully by millions for over 40 years. They give happy relief and will help the 15 miles of kidney tubes flush out poisonous waste from your blood. Get Doan's Pills. (ADV.)

Tommy realized McNally was within his rights. The rules of the road specified that the engineer of a passenger train whose locomotive was crippled could commandeer any freight power he saw fit. Nevertheless, eager to attend the ball, Tommy tried to argue the point.

"Listen, Mac," he pleaded. "I've had trouble, too. That's why I'm so late. You can doctor your engine up, can't yuh? I want to get in. I must reach Salanda tonight."

One glance at McNally's face told Jack that his engineer was only wasting words. A rule was a rule. Mac wouldn't know about Flora Hickles. And wouldn't care even if he did know. Trained in passenger service, McNally was undoubtedly thinking in terms of precious seconds, the unpardonable sin of bringing the Limited in late. Mac waved the torch and bellowed: "You talk like a fool, Moran. If my Hudson could run safely, do you think I'd be taking your freight hog?"

AT THAT moment Mike Fowler returned from the tower and called out: "Hey, Mac! Dispatcher wants to know why you stopped. We're supposed to follow you out of here on Track 2. C'mon! You're tyin' up the works."

The veteran runner wheeled on him. "Oh, yes? Well, you trot back to the tower and tell the dispatcher you're not following me tonight. Tell him my air pumps have gone haywire and I'm taking your engine and leaving mine."

After instructing his brakeman on the moves to be told the towerman and relayed to the dispatcher at Salanda, McNally addressed the freight engineer again:

"All right, cut off your hog! I'll pin ahead and run down to tower. You follow me out and then back against my train. I'll come back and drop this old girl on your freight. Get me?"

The conductor of Number 30 appeared. Briefly he was informed of what was going on and was relieved to learn it was only motive-power failure. McNally would answer for the delay. He agreed to the moves and directed his head brakeman to uncouple their engine.

When the exchange of power was completed, McNally swung up into the cab of the 2995. Jack gathered his bag and things together. Tommy slowly rose from his seatbox, overwhelmed by defeat. Turning, he faced McNally and clutched his arm.

"Mac, do me a favor, please! Let me handle this train into Salanda, will you? Look, I got to get in. I've some place to go and it means a lot to me. I'll make it up for yuh some time."

McNally recovered enough from the shock of the proposal to laugh in a tone that indicated what he thought of it.

"You're sure you don't want to be stuck with a cripple?" he sneered. "Now, don't tell me your great-aunt needs to have a tooth pulled and you must be there with her. Ha, ha! How you young squirts hate a little extra work!"

"No, Mac, that isn't it," Tommy countered, swallowing his pride. "I have a heavy date to take a dame to the Brotherhood Ball in Salanda tonight. It's important—"

"What!" McNally thundered. "Do you really think I'd let you run the Limited into town, while I—What the hell are we arguing for? Get your stuff together and unload! I'm pulling out."

Crestfallen, Tommy picked up his bag and eased his six feet down from the cab of the 2995. He and Jack Halsey stood in silence beside the track while McNally whistled in his flagman, took slack, and whipped *The New York*

*Limited* away and into the night. Tommy looked after the fading marker lights that hung on the rear end of a private car that the train was pulling, and shook his head.

"Well, Jack, there goes my last chance," he said bitterly.

The fireman was thoughtful. "No, you have one more chance left," he responded. "Go to the phone there, call the tower, and have him send a message to Flora that you're stuck. She's the daughter of a motive power man. She'll know the score."

"THAT'S a good idea," broke in an unfamiliar voice. "You'll pardon me, but I overheard part of your conversation with the engineer on Number 30. He could have let you handle the passenger train."

The two enginemen turned in surprise to find a stranger at their side. He was a peppery little man, tall, thin, erect and well dressed. The close-cropped white mustache indicated he was in his late sixties.

"My name's Woodward," the man introduced himself quietly. "I was riding Number 30. I came ahead to learn the reason for the stop and—well, they went off without me. I'm a bit too old now to catch a train on the fly."

"That's too bad!" Tommy sympathized. "You'd better send a message and have them put your bags off at Salanda. There won't be another passenger train due here for several hours—that is, one which stops here."

"Do you think you can fix that engine?" Mr. Woodward inquired, eagerness showing in his frosty blue eyes.

"I'll try," Tommy said modestly. "We'll be here all night if I don't."

"You've a heavy train," the stranger reminded him. "Will a Hudson type be able to handle it?"

"Look, mister," was the reply, "I *must* get into Salanda tonight. I'm going to get there if I have to pull these reefers myself. Now you'd better send your message and get up to the depot. These tracks are dangerous for anyone to be wandering around on at night."

Mr. Woodward smiled quizically. "I wonder if you'd let me ride with you?"

"What?" Jack cried. "Haven't we enough trouble as it is without being responsible for a paying passenger?"

"Passengers ain't allowed in the cab," said Tommy, impatient to get to the phone. "And I don't think the conductor will take yuh in the caboose. That's not permitted, either. Much as I'd like to help—"

"Oh, I'm not a paying passenger," Mr. Woodward smiled. "I'm a railroad man myself. Maybe I can help you to get this engine moving."

"What do you do on the railroad?" Jack asked suspiciously.

"I work for the BB&OW. Before I obtained my present position I pulled passenger for many years. I was a charter member of Lodge 8888 of the Engineers at Salanda."

The fireman's face brightened instantly. "Okay," he replied. "You should have said that in the beginning."

"Glad to know you." Tommy extended a large hand. "My name's Moran. You're good as gold with me. I'll fix you up to ride with the brains—"

"If it's all the same, I'd rather ride with you," Mr. Woodward grinned. "I'd feel more at home."

"Sure, all right," Tommy nodded. "Jack, get the tools ready. I'm going to the phone. And while I'm talking to the tower I'll send a message to have them put your clothes off at Salanda."

Mr. Woodward thanked him and immediately started to remove his coat.

"What are you doing?" Jack asked.

"Why," said the man, "give you a hand repairing the engine."

The fireman chuckled. "You don't have to give us a hand. Moran doesn't need any help. He'll fix that pump as fast as a guy can change an automobile tire. He's an engineer. He can take 'em apart and put 'em together."

"But Mr. Moran wants to get in tonight, doesn't he?"

"Yeah, he's got a date. He's gonna ask a lady to marry him. But I think the jig is up. Another fellow is rushing her, too."

BRIEFLY he explained the situation. "I'm only telling you this so you can understand what we've been up against all day, and why Tommy is jittery."

"Do you think this Marmaduke Dilley has a chance with the young lady?" Mr. Woodward inquired.

"Who knows?" the fireman shrugged. "You never can tell what a skirt will do. She may be just sore enough tonight over Tommy's standing her up to take this other guy."

Before Mr. Woodward could reply, Tommy returned from the phone.

"I sent the messages off," he said. "Now to get the pump fixed."

Mr. Woodward was an interested spectator. In twenty minutes Tommy had the governor reset and the pump working as it should, and swung up into the cab and tried the air.

"Hey, Happy, call the tower and tell him we're ready," he ordered joyously.

The fireman and Mr. Woodward stood beneath the cab window waiting for the brakeman to return from the tower phone.

"Your friend has a big order on his hands," Mr. Woodward confided. "If he can handle this train with passenger power, he's an engineer all right."

"Just watch him!" Jack said proudly. "Look, we got the signal. And the dispatcher is putting us on Track 2!"

Mr. Woodward followed him into the cab. Tommy was already whistling in his flagman.

"Sit with the fireman," Tommy directed Mr. Woodward. "The brakeman can share my seat."

The elderly gentleman climbed in ahead of Jack Halsey, turned up his coat collar, and watched Tommy prepare to start the long, heavy train.

When the engineer considered sufficient time had been allowed for the flagman to return to the caboose, he spun the reverse around, took slack, and then sent the big, powerful passenger locomotive ahead. The slack stretched, the eighty-inch drivers slipped, the exhaust roared. Again he tried. The drivers bit into the rails, the exhaust barked slowly, and the fast freight began to move.

"He did it!" Mr. Woodward exclaimed. "And he took slack only twice! If I weren't a witness myself, I doubt if I should believe it."

"I told you that boy is an engineer," Jack grinned confidently. "Now just watch the way he rolls her. You can tell the boys on the BB&OW how we hit the high spots. And tell 'em these Hudson types are the finest things on wheels. Look how this gal is walking the jigger out of town! Would you believe it?"

"Remarkable performance," Mr. Woodward agreed. "A good engineer and a good engine is a combination you can't beat."

"Yeah, you said it. And to think Old Iceberg doesn't want a man like that for a son-in-law! If Tommy marries that geezer's daughter he may find himself out of a job. You know the things a motive power boss can hang on a fellow."

"If I were Tommy," said Mr. Woodward, "I wouldn't worry. This Iceberg person isn't the whole New York Central Railroad."

TOMMY called for signals approaching the yard limit board at West Salanda.

"Well, we're here," Jack leaned forward expansively to speak into Mr. Woodward's ear. "Some run, hey? He was making better than sixty."

The elderly gentleman smiled and said: "Yes, I know. But the way your friend handles an engine! It's a pleasure to watch him."

The train slowed for a switch, rumbled off the main line. As they were passing a yard office the assistant general yardmaster swung on the cab steps and called up: "Say, Moran, have you a Mr. Woodward with you?"

"Why, yes—"

"That's fine! Don't go to the house. We're sending you light down to the passenger station." The assistant general yardmaster pulled himself up another step and called into the cab: "We're very sorry what happened, Mr. Woodward. I'm having you run down to the passenger station. We cut your car off Number 30 and if it's all right with you, we'll put it on Number 18. She's due here in half an hour."

Mr. Woodward smiled. "Now don't you boys get alarmed. It was my fault. I had no business poking my nose into something that didn't concern me."

Tommy had no time to speak. He was guiding the engine across the maze of switches to the passenger station. Jack Halsey, dumb with amazement, tried to speak, but could find no words.

The engine stopped in the depot. The stationmaster, Superintendent Bostwick of the Buffalo Division, Old Iceberg Hickles, and practically all the who's who on the Buffalo Division were lined up on the platform.

Mr. Woodward stood in the gangway and surveyed the group. At length he spoke to Tommy: "Son, come down with me a minute. I want to talk to you." He had one foot on the last cab step when Superintendent Bostwick rushed forward, hand extended, saying:

"I'm very sorry this happened—"

"Please, I want no apologies," Mr. Woodward interrupted, smiling broadly. "I had a most enjoyable time. I wouldn't have missed this trip for anything. Excuse me a moment!"

A couple of girls were standing on the fringe of the crowd. Both were slim and attractive and both were clad in shimmering party dresses. Mr. Woodward stepped over to them, while Tommy waited beside the engine.

"Pardon me, but is either of you two young ladies Miss Flora Hickles?"

A pert little redhead spoke up. "That's me, mister. And this is my friend, Miss Edna Vanderpool." She indicated the girl at her side, a stately dark type wearing glasses.

"Well, this *is* a pleasure," the BB&OW man beamed. "My name is Woodward. Let me see, Miss Hickles, I believe you are down here to meet Thomas Moran, aren't you?"

Flora met his steel-blue eyes, met and held them. "Yes, but how did you know? We're going to the Brotherhood Ball."

"Yes, of course, young lady. Now which of these men is your father?"

Flora pointed out her dad. The BB&OW man turned to greet him. "Mr. Hickles, my name's Woodward. I'm Operating Vice President of the BB&OW."

Tommy and his fireman, who had now edged over to the side of the two girls and begun chatting with them,

were amazed at the identity of their passenger.

"As you may be aware," said Mr. Woodward, still talking to Old Iceberg, "I used to be a locomotive engineer. In fact, I was one of the charter members of the very lodge which is giving this ball tonight. And I'd like to tell you that I think Tommy Moran is too valuable for engine service. I haven't told him yet, but if you are willing and if he is willing, I am going to draft Moran for my road. There'll be a vacancy for Assistant Superintendent of Motive Power on the Atlantic Division about June first. I want Moran for it."

"That can be arranged, I believe," Old Iceberg replied stiffly.

The BB&OW executive turned to the engineer: "What do you think of this proposition, Moran?"

"Gee, I think it's great!" Tommy cried impulsively. "Of course, I'll accept, Mr. Woodward. I—I don't know how to thank you."

"Oh, that's all right," said the BB&OW official. "By the way," he turned to Superintendent Bostwick, "I wish you'd put my car on a morning train. I'm going to the ball tonight with Moran and Halsey and the girls. It's pretty late, but I guess we can still make it—if the boys will scamper home for a quick change."

"Will we?" chuckled Tommy. "See you in a few minutes, Flora. Say, that's a swell outfit you have on. You look beautiful!"

And Tommy said: "Miss Vanderpool, I'm the fastest dresser on the Buffalo Division. We won't keep you ladies waiting long at all. A fellow learns to step fast when he works for a four-track railroad."

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Those Thin Gillettes sure have the stuff!
You look well-groomed—save dough and time—
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# By the Light of the Lantern

# Ask us what you want to know

**RAILROAD questions are answered here free, but please note:**

**Only one query at a time. Write it on a sheet containing name and address (only initials will be printed.) Enclose stamped envelope.**

**Don't be disappointed if answers do not appear at once. They are printed two months before date of issue.**

*HOW many engines were ordered in the United States in 1940, and how does that figure compare with the listing for 1929?*—L. H., Waukesha, Wis.

Orders for 782 locomotives were placed with U.S. builders and railroad shops last year. Of that number, 694 were for domestic service, 85 for export, and 3 for service in Canada or export from Canada. Of the domestic listing, 219 were steam locomotives, 462 Diesel-electrics or other internal combustion types, and 13 electrics.

Outstanding orders in the steam field, excluding switchers, were as follow: Akron, Canton & Youngstown: two 2-8-2s; Santa Fe: ten 4-8-4s; Bessemer & Lake Erie: five 2-10-4s; Boston & Maine: five 4-8-2s; Chesapeake & Ohio: ten 2-6-6-6s; Milwaukee: ten 4-8-4s; Delaware & Hudson: twenty 4-6-6-4s; Detroit, Toledo & Ironton: four 2-8-2s; Duluth, Missabe & Iron Range: eight 2-8-8-4s; New York Central: fifty 4-8-2s; Norfolk & Western: five 4-8-4s; Northern Pacific: eight 4-8-4s and six 4-6-6-4s; Pennsylvania: two 4-4-4-4s; Frisco: three 4-8-4s and five 4-8-2s; Southern Pacific: twenty 4-8-4s; Union Pacific: fifteen 4-8-8-4s; Western Maryland: twelve 4-6-6-4s; and Wheeling & Lake Erie: seven 2-8-4s.

*Photo by D. Sargent Bell, from John G. Smith, Jr.*

**A Head-end View of the Pennsylvania Passenger Train Shown on Page 121 of This Issue**

*F. Moore Photo from James F. Byrne, East McKeesport, Pa.*

Motive Power East of the Mediterranean. The Palestine Railway's 1-Spot Is a Tank Locomotive of the 2-8-4 Wheel Arrangement

It will be noted that three new wheel-arrangements appear in this tabulation; namely, the 2-6-6-6, 4-4-4-4, and 4-8-8-4 types of the C&O, PRR, and UP, respectively. Horsepower-ratings of the last-mentioned engines will probably be the greatest ever developed in the steam field, though from the angle of tractive force their 135,700 pound maximum efforts will be eclipsed by the 140,000 pound ratings of the lower drivered DM&IR jobs. (As a basis of comparison, the Northern Pacific's Yellowstone type develops 139,900 pounds tractive effort, plus 13,400 pounds booster tractive effort.)

The 1940 aggregate figure of 782 locomotives exceeds the total for any one year since 1929, when 1413 locomotives were ordered. In the earlier year, 1230 machines were listed for domestic service, 106 for U.S. export, and 77 for Canada, including Canadian export.

✢

*WHAT happened to the St. Louis, Rocky Mountain and Pacific Railway, known as the Rocky Mountain Route? It ran between Des Moines, N. M., and Ute Park.*—C. D., Pontiac, Mich.

Chartered in June, 1905, as the St. Louis, Rocky Mountain & Pacific Railway, this line was projected through a coal-mining region, and opened for traffic in 1907. The Santa Fe took possession of the road in 1913, under a certain contract of purchase. The conditions of this contract having been met, the line (re-named the Rocky Mountain & Santa Fe Railway) was leased by the AT&SF as of July 1st, 1915. The present lease runs from January 1st, 1932, to December 31st, 1941; and thereafter, from year to year, subject to termination by either party on 90 days' notice.

In 1924, the Rocky Mountain & Santa Fe acquired a 9-mile line in Colfax County, N. M., belonging to the former Santa Fe, Raton & Eastern Railroad. At the same time, the Santa Fe was authorized to operate this trackage, under lease. Present routage of the RM&SF extends from Preston to Ute Park, 46.9 miles; and from Raton to Sugarite, 6.1 miles; with 20 additional miles of sidings.

✢

*WHAT are the present voltages and current distribution systems of electrified portions of the New Haven, the Boston & Maine, the Pennsylvania, the Great Northern, the New York Central, the Baltimore & Ohio, the Milwaukee, the Long Island, and the Michigan Central?*—C. D., Fairhaven, Mass.

Of the lines which you list, the first three use 11,000-volt, 25-cycle alternating current, with an overhead contact system. (New Haven engines also operate on 650-volt, third-rail delivered direct current, while on tracks of the New York Central between Woodlawn and Grand Central Terminal.)

The Great Northern employs 11,500-volt, 25-cycle alternating current, distributed by an overhead system. The New York Central, as already noted, has 650-volt, third-rail delivered direct current installations, as does the Michigan Central in its Detroit River tunnel. The Baltimore & Ohio employs 670-volt, third-rail fed direct current (Baltimore tunnel), while the Milwaukee's 3000-volt, d.c. current is catenary-fed. The Long Island, for its part, has two types of juice applications. The Bay Ridge Division conforms to Pennsylvania practice, while the remainder of the electrified zones use 650-volt, third-rail delivered direct current.

✢

*WHO built the first Diesel-electric switching locomotive in America?*—H. W., Chicago, Ill.

The American Locomotive Company, in conjunction with General Electric and Ingersoll-Rand, in 1925. This engine was purchased by the Central Railroad of New Jersey, and is still in active service.

✢

*PRINT a brief history of the Chicago & Eastern Illinois, including its connection, if any, with the Frisco.*—G. K., Simsbury, Conn.

The C&EI had its start as the Chicago, Danville & Vincennes Railroad Company, built to extend from Chicago (via Danville) to a junction with the Evansville, Terre Haute & Chicago Railroad at the Indiana State Line; a distance of 140 miles. The road was put through as far as Milford by October 1st, 1869; opening up a rich bituminous coal producing region. The CD&V was sold under foreclosure in 1877, and emerged as the original Chicago & Eastern Illinois Railroad Co.

On June 7th, 1894, a second Chicago & Eastern Illinois Railroad was organized under the laws of Illinois and Indiana, as a consolidation of the old Chicago & Eastern Illinois Railroad Company and the Chicago & Indiana Coal Railway Co. Seventeen years later, this organization, in turn, was consolidated with the Evansville & Terre Haute Railroad and the Evansville Belt Railway Company. The present Chicago & Eastern Illinois Railway was chartered in 1920, as a reorganization of those properties.

As to its relationship with the St. Louis & San Francisco, the C&EI was under control of that line from August, 1902, to November, 1906, when the latter road was itself reorganized. At present, Chicago & Eastern Illinois control is in the hands of the Chesapeake & Ohio Railway, through dominant stock ownership of its wholly-owned subsidiary, the Virginia Transportation Corporation.

✢

*WHAT was the purpose of the Great Northern's 2-6-8-0 type Mallets, built in the early 1900's?*—W. S., St. Paul, Minn.

These twenty-two locomotives, designated as Class M-2, and numbered 1963 through 1984, were built by Baldwin in 1910. At that time the Great Northern had the largest number of articulated engines in the service of any U.S. railroad (67). These had been ordered in three batches, the first of which had proven so successful on 2.2 percent Cascade Mountain grades, both in the matter of hauling ability and economy of operation, that the Company had been encouraged to extend Mallet operation to districts having gradients as light as .072 percent.

This released an earlier lot of heavy Consolidation type engines and the motive-power department decided to convert them into articulated machines. Baldwin therefor added a new boiler-section to each locomotive, equipped with a feedwater heater superheater and smokebox. Beneath this was placed a six-coupled wheel unit, driven by low-pressure cylinders fed from the original high-pressure set. The lead truck was moved ahead of this unit and in most other respects, i.e.: grate area, heating surface, etc., the characteristics of the Consolidation engine were retained. It was estimated that in slow freight service, fuel consumption (per ton mile) would be reduced by approximately fifty percent.

*Snow-ice photos by H. H. Slawson, 2206 Winnemac Ave., Chicago, Ill.*

A Crusher-Slinger Crew at Work, Icing a Carload of Celery and Lettuce. See Answer to W.E., on Page 46

Principal specifications of these locomotives, as originally built (Consolidation type), and after their conversion to Mallets (2-6-8-0 type), follow:

| | 2-8-0 | 2-6-8-0 |
|---|---|---|
| Cylinders | 20x32 in. | 23 and 35x32 in. |
| Drivers | 55 in. | 55 in. |
| Pressure | 200 lb. | 210 lb. |
| Weight | 210,350 lb. | 378,300 lb. |
| T. E. | 41,500 lb. | 82,000 lb. |

In 1926-27 the Great Northern rebuilt the 2-6-8-0s, retaining that wheel arrangement, but altering the specifications somewhat. The engine-weight was increased to 403,000 lbs.; the cylinder dimensions were reduced to 22- and 23½- by 32-inch stroke; and the maximum tractive effort raised to 95,500 lbs.

✢

*LIST classification numbers and schedules of the New Haven's fastest Boston to Harlem River freight trains.*—E. R., Taunton, Mass.

The *Speed Witch* (NE-1), operating from Boston to Baltimore via the New Haven and the Pennsylvania, leaves its New England terminal at 5.15 p.m., and arrives at Bay Ridge at 12.45 a.m.; an elapsed time of seven hours and thirty minutes for the 241 miles. Excluding stops at Providence, New London and New Haven (totaling one hour), her average speed is 37.1 miles per hour.

Fastest hotshot between the specific points which you mention is the *Round-Up* (BH-3), operating from Boston to Oak Point and Harlem River for late trailers, merchandise and fish. It leaves Boston at 8.45 p.m., and arrives at Oak Point at 4.20 a.m., and Harlem River at 4.45 a.m. For the 222 miles between Boston and Oak Point, the *Round-Up* operates at an average speed of 33.9 miles per hour, excluding stops at Readville, Providence, New London and Cedar Hill. These hold-overs total sixty-two minutes.

*EXPLAIN the snow-ice principle of handling perishable freight in transit.*—W. E., Barboursville, W. Va.

This method of car refrigeration is rapidly finding favor over the old bunker method and has proven so effective and economical as to discourage any extension of mechanical refrigeration at the present time.

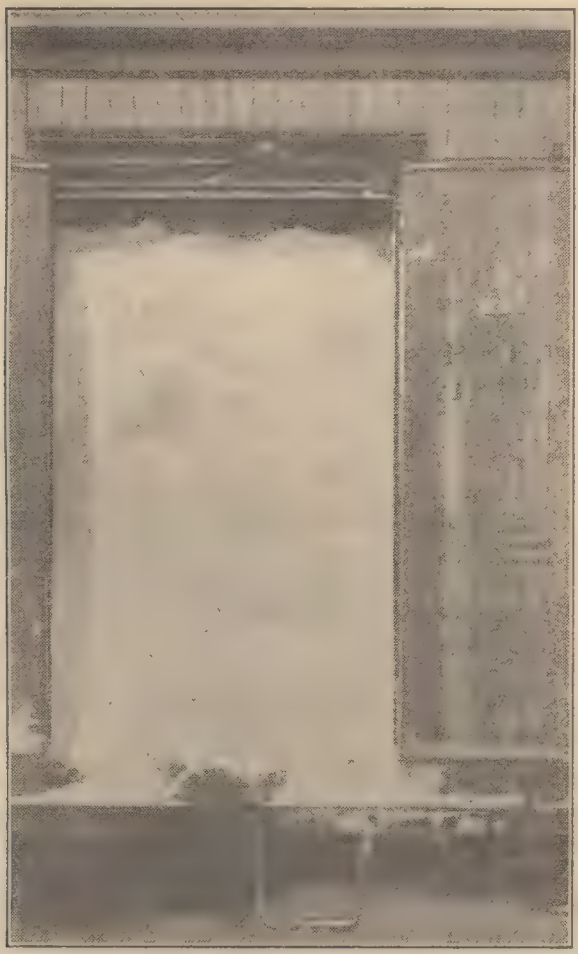
Credit for the process goes to Charles Phillips, a San Franciso commission man who, through long years of association with one of California's largest shippers of fresh fruit and vegetables, had reason to know of the shortcomings of the older icing system. The policy of strewing chopped ice over the top of a load before car doors were finally sealed was, he recognized, not only wasteful, but served its purpose poorly.

Phillips felt that if a solid layer of finely chopped top icing could be applied in a rapid manner, it would have the effect of sealing a cargo from warm air "tunnels" which work down into shipments treated in the conventional way. What was more, in addition to settling evenly as they melted, the ice particles would sift between the crates, holding them in place and reducing damage to a minimum. Humidity would be kept even throughout the car.

Hampers of Green Peas in a Pacific Fruit Express Car at Chicago Produce Terminal, Before Having Two Tons of Snow-Ice Applied

Developing an ice-crushing machine presented no unusual problems of design and, basically, Phillips' first crusher-slinger, built in 1932, was not unlike the ones in use today. It consisted of a hopper containing a revolving drum, equipped with stout prongs or ice picks whose purpose was to shred the solid block into fragments. These were thrown against a breaker plate whose lower edge resembled a fine-toothed comb. Passing through the narrow aperture, minute fragments were caught up, first by a revolving screw conveyer, and then by an impeller or slinger which hurled them out of a length of hose which could be directed at any part of a car.

Used first by H. P. Garin & Company, the snow-slinger proved so successful that today it is employed at 200 junctions and terminals throughout forty-one states, and in Canada, Iceland, Great Britain and Soviet Russia. With the assistance of a modern machine, two men can pack a reefer with four tons of snow-ice in a matter of thirteen minutes, as against forty-five minutes' work for each of three men, by the old top-icing method.



The Same Car, Thirteen Minutes Later. The Melting Ice Settles Evenly, Holding the Baskets in Place and Furnishing Uniform Humidity

Naturally, the new process is not adapted to the refrigeration of meats, which must be kept dry, but it has been found ideally suited to the preservation of fish, fresh fruit and vegetables, and milk and cream.—*Compiled from data furnished by H. H. Slawson.*

✢

*HOW do the largest railroad stations in the United States compare with the biggest in England.*—O. W., New Orleans, La.

Our largest station, in point of traffic, is the New York Central's Grand Central Terminal, in New York City, which has 29 platforms and 42 tracks on its upper or express level, and 15 platforms and 25 tracks on its lower or local level. Larger in floor space than this terminal, but having fewer platforms (25), is the Pennsylvania Station, in the same city.

Britain's largest station is the Waterloo terminus of the Southern Railway, incorporating 21 platforms, with 4 others below ground for electric tube lines. For volume of traffic, Clapham Junction of the same road is without an equal. Here are 17 platforms, handling, prior to the war, some 2000 trains every twenty-four hours, or no fewer than 12 at a time.

✢

*WHAT do the initials EI&TH stand for, and is the history of this road available?*—A. A., Chicago, Ill.

The name of the line is the Evansville, Indianapolis & Terre Haute Ry. Co. Incorporated on June 12th, 1920, under the laws of Indiana, as a reorganization of the Evansville & Indianapolis Railroad Company, the road extended between the terminals designated in its title, and was operated by the Big Four (as agent) from that date until January 2nd, 1930, when its properties were leased to the CCC&St.L for a period of 99 years. In June, 1938, a final merger was affected. The absorbed line had a length of 130.8 miles, with a branch from Oakland City to Coe Yard switching tracks (6.7 miles).

✢

*GIVE weights on driving wheels of Lehigh Valley engines of the T-1, T-2, and T-3 Classes.*—E. W. (no address) 270,000 lbs., 269,000 lbs., and 270,100 lbs., respectively.

✢

*WHAT was the story of the Salt Lake & Los Angeles Railroad Company, prior to its absorption by the Union*

*Pacific?* — W. L., Springville, Calif.

We believe that you refer to the Los Angeles & Salt Lake Railroad, which must not be confused with the Salt Lake & Los Angeles Railway, an interurban trolley line running from Salt Lake City to Saltair Beach and Garfield, Utah, 16.3 miles.

The Los Angeles & Salt Lake Railroad was incorporated on March 20, 1901, in Utah, as the San Pedro, Los Angeles & Salt Lake Railroad Company. The road was opened in the same year, having purchased from the Los Angeles Terminal Railroad Company, its lines from East San Pedro (now a part of Los Angeles) to Hartwell, from Glendale Jct. to Verdugo, and from Hartwell to Millard Canyon, a total of 49.4 miles. In 1903, the following additional roads were acquired from the Oregon Short Line: from Sandy to Frisco, Utah, 226 miles; from Milford, Utah, to Caliente, Nevada, 115 miles; from Lehi Jct. to Tintac, Utah, 45 miles; and from Salt Lake City to Leamington Jct., Utah, 115 miles; together with a number of short branch lines. The remainder of the system was built by the Company.

In 1916, the name San Pedro was dropped from the designation of the road. The Union Pacific acquired control of the LA&SL in 1921 and, effective January 1st, 1922, its properties were formally included in the holdings of the larger carrier.

✢

OUR thanks to William D. Edison, Clarence H. Poole, Jr., O. K. McKnight, and Fred McWilliams, who called our attention to the fact that the Milwaukee Road does offer Pullman Sleeper Car service, having in point of fact, a total of 68 such cars, as compared to 108 company-owned sleepers, at the present time.

## The Louisiana & Arkansas Railway

OPERATING approximately 811 miles of railroad over the lowlands of Texas, Arkansas and Louisiana, with nearly three-fourths of their mileage in the last-named state, the lines of the Louisiana & Arkansas Railway extend from Hope, in the southwest corner of Arkansas, through Alexandria and Baton Rouge, La., to New Orleans; and from Shreveport to Alexandria. A branch line links Minden and Shreveport, while another reaches eastward from Packton to Vidalia on the Mississippi where a car-ferry connection is made with the Mississippi Central at Natchez. Still a third route, designated as the Texas freight line, extends westward out of Shreveport to Farmersville, Texas, affording entrance into Dallas via connecting trackage of the Gulf, Colorado & Santa Fe (AT&SF).

First steel fibre of the L&A network was a thirty-eight mile section of road completed between Stamps, Ark., and Cotton Valley. La., in October 1898, and designated as the Louisiana & Arkansas Railroad. Reorganized as the Louisiana & Arkansas Railway, first under Arkansas charter, in 1902, and again under Delaware charter, in 1928, the line took over the operation of the Louisiana Railway & Navigation Company and its subsidiary, the Louisiana Railway & Navigation Company of Texas, in 1929. Five years later it absorbed the former road and, in July, 1939, the Louisiana, Arkansas & Texas (LRN of T) was similarly merged. Control of the Louisiana & Arkansas Ry. itself was acquired by the Kansas City Southern in October of the same year, and the facilities of the two roads coordinated at the common point of Shreveport.

Strategically, the lines of the L&A are well placed. For in addition to serving our second largest seaport, they tap a region rich in raw materials. Products of mines (including gravel, sand and stone), crude petroleum. forest output, and manufactures and miscellaneous items (refined petroleum, sugar, molasses, iron and steel, and cement and automobiles), have comprised over ninety percent of the line's total revenue during the past ten years. Further, the L&A enjoys a high average freight rate, reflecting the fact that more than fifty percent of the commodities carried represent manufactures and miscellaneous items, which bear relatively high tariff rates—and that about sixty percent of this revenue freight originates on its lines.

In addition to the locomotives listed on the following three pages, the system owns 1,805 freight, 35 passenger, and 270 miscellaneous cars. Last year, 1,955 employees were listed on its payroll.

# Locomotives of the Louisiana & Arkansas

In 1933, Ex-Florida East Coast Number 309 Was Hauling the L&A's "Shreveporter." Two Former Kansas City Southern Engines, the 800 and the 806, Are Now the Only Pacifics on the Line

### 0-8-0 (Eight-Wheeled Switcher) Type

| Numbers | Cylinders | Drivers | Pressure | Weight Engine | Tract. Force | Builder and Date | Remarks |
|---|---|---|---|---|---|---|---|
| 79 | 20x26 | 51 | 200 | 144,000 | 34,667 | Bald., '06 | LR&N 79 |
| 251-253 | 25x28 | 51 | 175 | 215,000 | 51,042 | Rich., '24 | FEC 251-253 |
| 1007 | 21x30 | 55 | 210 | 189,800 | 42,937 | Bald., 1900 | KCS 1007 |

### 2-6-0 (Mogul) Type

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 82 | 18x24 | 55 | 200 | 122,150 | 24,035 | Bald., '09 | LR&N 82 |
| 455 | 19x26 | 57 | 190 | 131,200 | 26,594 | Bald., 1900 | MK&T 455, LR&NT 455, LA&T 455 |

### 2-8-0 (Consolidation) Type

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 90, 91 | 20x26 | 51 | 180 | 156,400 | 31,200 | Bald., '12 | LR&N 90, 91 |
| 98, 99 | 20x26 | 51 | 180 | 156,400 | 31,200 | Bald., '19 | LR&N 98, 99 |
| 243 | 21x28 | 57 | 200 | 184,000 | 38,167 | Brooks, '03 | LR&NT 243, LA&T 243 |
| 425 | 21x30 | 59 | 200 | 182,000 | 37,485 | Bald., '01 | Colo. Mid. 205 |
| 490, 491, 494 | 22x30 | 55 | 210 | 222,480 | 47,124 | Pitts., '06 | KCS 490, 491, 494 |
| 526 | 22x30 | 55 | 210 | 222,480 | 47,124 | Bald., '07 | KCS 526 |
| 559, 560 | 25x30 | 57 | 200 | 254,000 | 55,948 | Rich. '13 | KCS 559, 560 |

Last Month We Pictured a Russian Decapod Engine in the Service of the Susquehanna. Here's Another of These 2-10-0s, Acquired by the Louisiana & Arkansas When It Took Over the Louisiana Railway & Navigation Co.

A Tender Truck Booster Makes This Mikado One of the L&A's Two Most Powerful Freight Locomotives

### 2-8-2 (Mikado) Type

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 544 | 23x28 | 57 | 200 | 259,000 | 44,176 | Schen., | '28 | Denkman Lumber Co. |
| 551, 522 | 24x28 | 57 | 200 | 259,000 | 48,101* | Bald., | '23 | |
| 553,554 | 24x28 | 57 | 200 | 259,000 | 48,101* | Bald., | '24 | |
| 555,556 | 24x28 | 57 | 200 | 259,000 | 48,101* | Bald., | '27 | |
| 561,562 | 23x32 | 63 | 240 | 301,000 | 54,814† | Lima, | '36 | |
| 563-565 | 23x32 | 63 | 240 | 301,000 | 54,814 | Lima, | '36 | |

### 2-10-0 (Decapod) Type

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 100-105 | 25x28 | 53 | 180 | 198,900 | 51,490 | Bald., | '18 | LR&N 100-105 |
| 106 | 25x28 | 53 | 180 | 198,900 | 51,490 | Alco., | '18 | LR&N 106 |

### 4-4-0 (American) Type

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 302 | 18x24 | 67 | 200 | 124,500 | 19,730 | Bald., | '12 | |

### 4-6-0 (Ten-Wheeler) Type

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 95 | 20x26 | 57 | 180 | 158,550 | 27,800 | Bald., | '15 | LR&N 95 |
| 172, 177 | 20x26 | 63 | 200 | 149,379 | 28,063 | Bald., | '03 | |
| 204-207 | 20x26 | 57 | 200 | 153,000 | 31,018 | Bald., | '06 | |
| 297 | 19x26 | 63 | 200 | 158,550 | 25,327 | Bald., | '15 | LR&N 97, L&A 97 |
| 392 | 20x26 | 69 | 200 | 158,550 | 23,500 | Bald., | '13 | LR&N 92 |
| 393, 394 | 19x26 | 69 | 200 | 158,550 | 23,500 | Bald., | '13 | LR&N 93, 94 |
| 396 | 19x26 | 69 | 200 | 158,550 | 23,500 | Bald., | '15 | LR&N 96, L&A 96 |
| 500-511 | 22x28 | 57 | 200 | 194,000 | 40,418 | Bald., | '13 and '20 | |

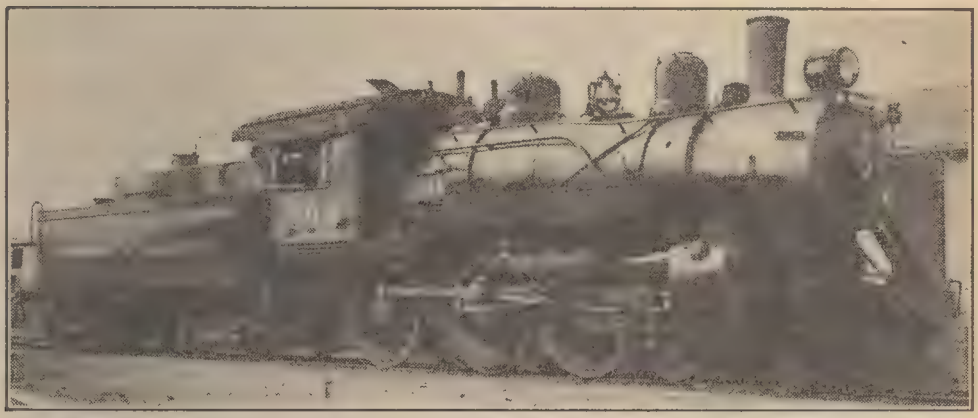
### 4-6-2 (Pacific) Type

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 800, 806 | 24x28 | 75 | 225 | 258,000 | 41,126 | Schen., | '12 | KCS 800, 806 |

**With trailer booster 58,901.*
*†With tender booster, 71,300.*
*This Roster was compiled from data furnished by Russell E. Stewart, 254 Forest Ave., Shreveport, La. Photos are from the collection of Joseph Lavelle, 4615 66th St., Woodside, N. Y. City. Coming: the Georgia & Florida, and the Charleston & Western Carolina.*

Baldwin-built Number 54, Photographed at Minden, La., in 1933. She's Since Been Scrapped

Few Roads of Its Size Have a More Bewildering Assortment of Locomotive Numbers Than the L&A, Which Retains Those Applied by Seven Previous Owners of Its Motive Power. Number 88 Is Another Baldwin Girl No Longer on the Roster



For Some Years Prior to the Advent of the "Southern Belle," with Its Streamlined Diesels, the 390 Class of 4-6-0s Handled All L&A Passenger Service. Now Their Only Regular Assignment Is the Hope (Ark.) and Shreveport Run, in Connection with the Missouri Pacific

A Vanderbilt Tank and Wide Footboards on Either Side of an Abbreviated Pilot Characterize Number 554, Snapped by Joseph Lavelle as She Was Picking Up Tonnage at Winnfield, La., a Couple of Years Ago

# The Modern Logging Road

## *Aside from Gage, It Has Very Little That You'd Call Standard Practice*

By W. J. RYAN

Columbia & Cowlitz Railway (Weyerhaeuser Timber Co.)

THE primary function of a logging railroad is the transportation of logs from woods to sawmill. This service was originally performed by teams of oxen that dragged the logs over poles laid across the roads. The modern logging railroad has progressed a long way toward standard railway practice but it still bears some of the characteristics of this ancestor, the "skid road."

The first logging railroads were built without any technical engineering. It was part of the logging superintendent's duty to locate his railroads, and he had little time to plan further ahead than the section he was working in. These roads were extended from year to year, until the easy country was "logged off" or some serious obstacle to further progress was encountered. About this time, locating engineers were called in to get out of the difficulties, and the orig-

*Photo (made about 1891) from K. Gus Smarey, Suttons Bay, Mich.*

**For Years the Lake County Railroad, a Michigan Log Carrier, Hauled Its Trainloads to the Pere Marquette River, Crossing the F & PM (See Page 73) near Baldwin. It Was Torn Up in 1895**

inal lines had to be abandoned and a new line built to reach the tracts of timber farther back.

These engineers were given no opportunity to learn the logger's requirements, and often the results were not satisfactory. At length people began to realize that the job called for an engineer who understood logging. In 1912, at the Pacific Logging Congress, an active campaign was begun for "the creation of the profession of Logging Engineering as a distinct branch of mechanical science." As a result of this effort, the Western universities have established courses in the subject and each year are graduating classes of expertly trained men with degrees in Logging Engineering.

The larger logging operations now have engineering departments, while some of the smaller concerns, who do not feel justified in maintaining engineers of their own in continuous employment, turn over all of this work to engineering firms. There are, of course, many parts of the logging operation in which an engineer is called upon to assist, but his chief duty consists in the location of railroads. The object of logging railroad location is not to provide a route through a territory or to connect two definite points, as is the case with common carriers, but is to serve a given area with a network of rails. Any section of a tract of timber that is not within "yarding distance" of a railroad is in the same position as a piece of land above the ditch on an irrigation project. This "yarding distance" is the distance that it is economical to bring logs from the stump to the "landing" where

they are loaded on cars. It varies from 600 to 3000 feet with different types of logging equipment in use. Thus the spacing of the railroads will vary from a quarter-mile to a mile.

It is the relationship between the cost of logging by various methods and the railroad's cost that determines the kind of equipment best suited to a given operation. As railroad construction becomes more difficult, higher expense is warranted for logging equipment and labor to give longer yarding.

Every phase of railroad construction and operation is intimately connected with the logging it is to serve, and a survey for a proposed railroad is incomplete unless it covers a study of the area from the viewpoint of logging as well as of railroading. The modern "timber cruiser," who examines a tract of land, makes a detailed report of the timber he finds, by species and grade, and draws a contour map of the area.

These cruisers' maps are made by pacing distances and measuring elevations with aneroid barometers. Usually they are drawn on a scale of about six inches to one mile, with contour intervals of from 25 to 100 feet. The United States Geological Survey has mapped much of the timbered area in this country, but some districts still have no adequate maps.

Where a logging railroad is contemplated for any given section, the available maps are used as a basis of preliminary study. However, logging operators recognize the value of an accurate contour map, and the reconnaisance survey usually takes the form of a mapping party. Well-made maps, with accurate "cruises" of the timber, allow the operation to be planned so the railroads can be built in the proper location for efficient logging at minimum cost.

WHEN the logging road leaves the timber and is built for some distance to a log dump at mill or rafting ground, the selection of a route is no different from that for standard railway or highway practice—except, of course, that controlling rates of grade and curvature may have been determined by conditions met in the timber. This route to the timber, together with one or more lines through the tract, comprises the main line. Grades up to 4 percent and curves as sharp as 24 degrees are used on these main lines, and construction costs run as high as $50,000 per mile.

Branches and spurs serve the actual logging, and from these the loaded cars are

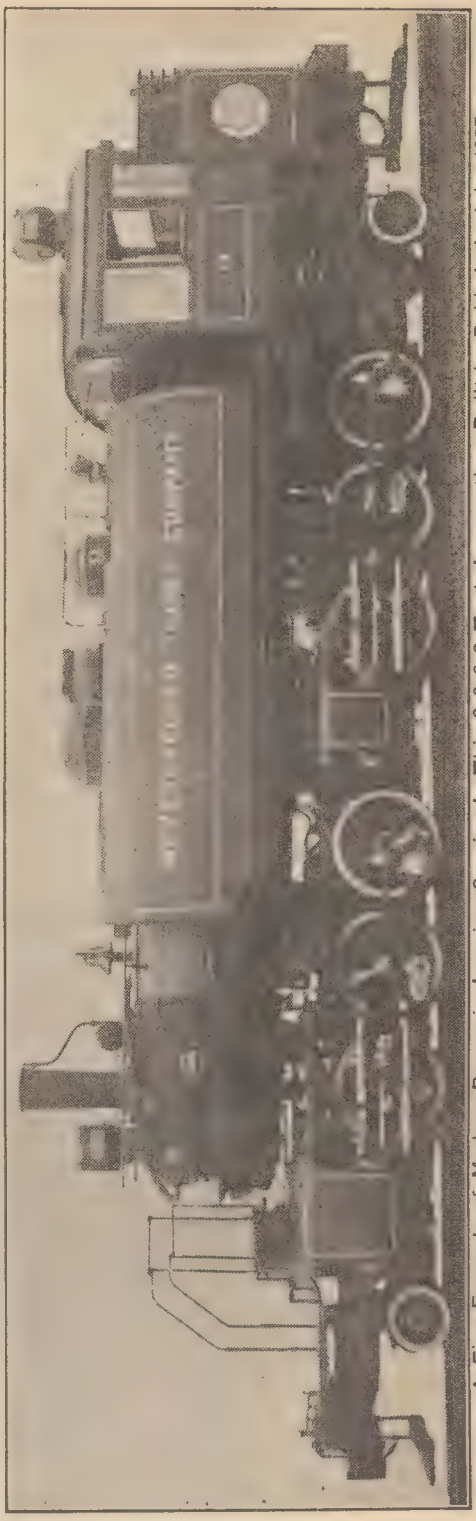
For Many Years the Author, W. J. Ryan, Has Been Working for the Columbia & Cowlitz Railway, Subsidiary of Weyerhaeuser Timber Co. Number 109 Is One of the C&C Rod Engines Which Haul Log Trains to the Sawmill at Longview, Wash., Where This Photo Was Taken by Robert M. Hanft of Brainerd, Minn.

switched by lighter locomotives. Geared motive power on these spurs permits the use of curvature as sharp as 40 degrees and grades of six percent; and where timber is still out of reach, inclines are resorted to.

The field work of location is usually done with parties of from three to six men. A transit or compass preliminary is run, often with an axe man, a chain man and an instrument man, using a 500-foot tape and setting stakes at 100-foot stations. The same party runs levels and takes topography. The projection made from this preliminary is run out in the field or the center line is staked by offsets from the preliminary. A small group can do the locating and look after the construction of ten or fifteen miles of roads a year—which proves more satisfactory than employing a larger party on intermittent work.

Clearing the right-of-way is often the most expensive part of railroad construction. A great deal of road has been built with no form of power except dynamite, where there were stumps and logs up to ten feet in diameter to be removed. Horses and steam logging "donkey" engines are utilized for the clearing; also, in recent years, gasoline "donkeys" and tractors. Where power shovels or drag lines are used for the grading, the same machine frequently does the "chunking out."

As a rule, culverts are built of logs. Where long life is required Western red fir is chosen, as this wood resists decay under the conditions found in culverts. Prior to recent years, the grading was done largely by hand. The only power commonly employed was a drag scraper pulled by a logging engine, although a limited use was made of steam shovels. Now the small revolving shovel, or dragline on crawler treads, is doing much of the work. Where it comes within range of the machine to waste the cuts and borrow for the fills, this method is commonly employed. The shovel runner and his helper may constitute the entire grading crew, and the finishing be left for the men who lay the track. When necessary to haul the excavated material, it is customary to use car and track, although



A Fine Example of Modern Power in Logging Service Is This 2-6-6-2 Tank Locomotive, Built by Baldwin in July, 1937

*Photographed July 4, 1937, by Albert Phelps, Auburn, Calif.*

**Engine House of the Diamond & Caldor Railway at Diamond Springs, Calif. Pictures on Page 56 Show Three Types of Motive Power Commonly Used on Logging Roads: (Top to Bottom) a Climax on the San Joaquin & Eastern, Photographed by D. W. Thickens; a Shay on the D&C, Snapped by Albert Phelps; and a Heisler on the Swayne Lumber Co., Shot by James E. Boynton, All of California**

motortrucks are used to some extent.

Construction of bridges has shown more variation from standard railway practice than any other feature of logging railroad work. Bridges erected on the skid roads of bull-team days were cribs of logs with a solid deck. The first railroads were laid over this same type of bridge, with ballast under the ties. In these structures the logs were seldom salvaged, and when timber increased in value, cost became excessive.

The framed and pile trestles now used vary widely in design. Pile trestles are built of material cut at the site, when it is available in the right sizes, the caps and stringers being hewn to size and small poles employed for bracing. In many stands of timber, there are no trees suitable for bridge material, so it is necessary to haul timber in by rail from sawmill or other part of the operation. Pile trestles are erected cheaply when material is available on the ground. For many years, some operations built their spurs entirely on trestle. They found it cost less than grading and ballast.

Sawn timbers are available with depths of as much as 48 inches and are suitable for spans up to 40 feet. Logs are used as girders for spans as long as 50 feet, without any form of truss. Spans of 100 feet have been built by placing a solid deck of logs on falsework and laying ties about 20 feet in length on top of this deck. A large log is placed on top of the ties at each side of the bridge. The cap of the falsework is bolted through the logs above and below the ties to act as a floor beam, and the whole structure is laced together with wire cable. On high trestles, these log spans may be used to give channel clearance and frame bents be erected to carry the deck.

PILING trestles are frequently built to a height of 100 feet or more. When the ground allows little or no penetration for piling, the sticks are set, butt down, on the rock or hard pan and are braced. Piling as long as 100 feet, with a top diameter of 14 inches, has been used in this manner.

Frequently an overhead cableway is utilized in the erection of high trestles. A cable is stretched above the site and on or near

**Considerable Engineering Skill Is Required to Span a Canyon with a Structure Strong Enough to Carry a Modern Logging Railroad, Such as This One of Weyerhaeuser Timber Co. in Washington**

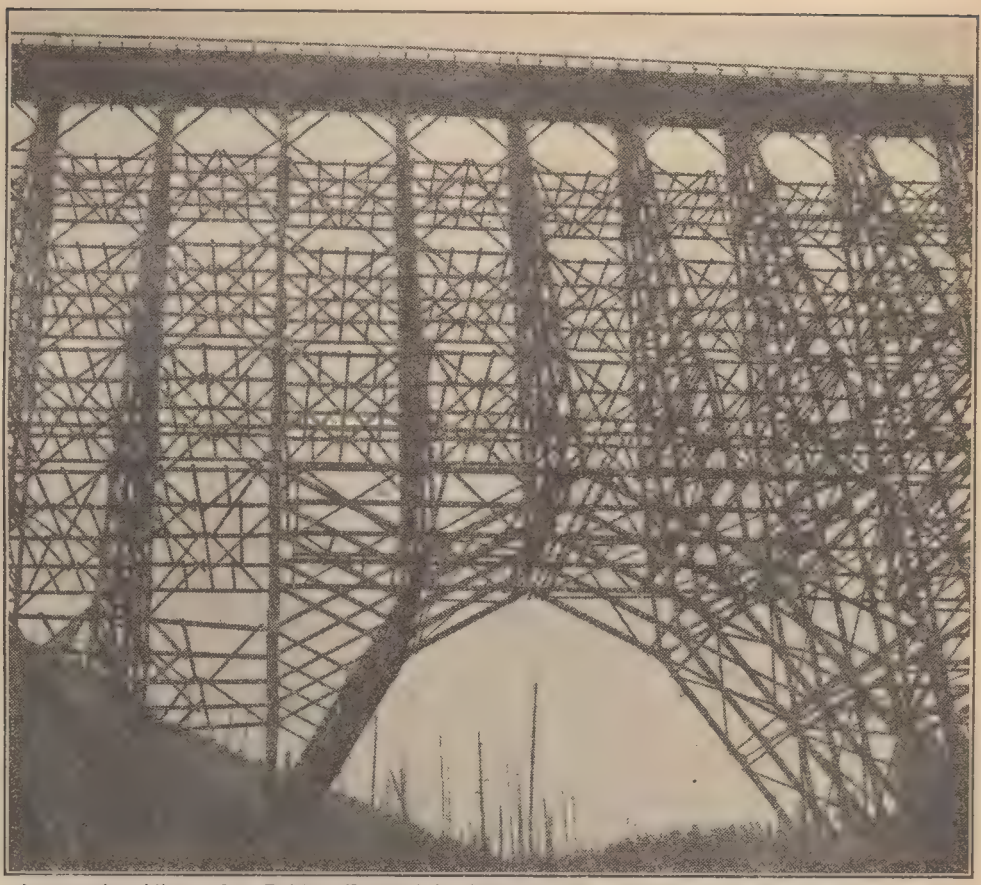
the center line. The cableway is used to deliver material and, in case of a framed structure, is employed to raise the bents. Wire rope up to two inches in diameter is usually available around a logging operation, and, with the use of a logging "donkey" for power, it is possible to design such a cableway for very heavy loads.

Howe trusses and steel girders are in use on logging railroads. Their design and construction conform to standard railway practice. Tunnels have been built on some logging roads. Generally they are timbered. The only variation from standard practice has been the wider section sometimes adopted to provide clearance in case of wide loads, due to knots or limbs on the logs. Some common-carrier roads have refused to accept logs for haul over lines with tunnels, but very few accidents have been reported from this cause.

Track-laying is commonly done from a push-car or from cars handled by a locomotive. As a rule, the car is arranged so that rails are placed on the floor or bunks; and ties are piled on the same car, on timbers, to hold them clear of the rail. The ties are rolled off the end of the car, and the sections of rail are pulled out and placed by hand. On some operations, modern track-laying machines are employed. The commonest kind have an overhead trolley supported on a truss and extending about 20 feet in front and 50 feet behind the car upon which the machine is built. Rails are loaded on the car under the machine, while two cars loaded with ties are placed behind. Ties are handled in bundles and are delivered in the center of the grade ahead of the machine. When the ties are in place, the rail is passed out and held by tongs until swung into position. The rails are retained by girdles until the work train is past, and spiking is done by a crew in the rear.

Usually the ties are made from local timber, hewn in the woods to a thickness of six inches. Where the operation is directly connected with a sawmill, sawn ties are generally used, made from a section six by eight inches to seven by nine. Good ballast is almost an essential along the western slope of the Cascade Mountains. Gravel is used where available. In some cases it is purchased on cars and delivered by common carriers.

Most operations have ballast pits at one or more places on their operations and they load into center dump cars. These cars are filled by shovels, drag lines, scrapers, grab buckets, and other devices. Although the most common weight of rail is 60 pounds per yard, some lighter rail is in use, while a number of roads have adopted



Impressive View of a Bridge Erected in 1940 by Weyerhaeuser Timber Co. in Cowlitz County, Wash., About 15 Miles East of Longview, for the Columbia & Cowlitz Railway. The Mighty Structure Is 1130 Feet Long and 230 Feet Above the Bottom of the Canyon. All the Timber in the Frame Trestle Portion Is Pre-framed and Creosoted, Except the Stringers and the Hand-Rail

heavier sections. Relay rail, brought from the standard railways, has been employed almost entirely. In a few localities foreign rail or American rolled new rail have been laid.

Sharp curves usually require lateral support for the rail, and rail braces are utilized. Several roads are using tie plates on the curves, and generally find that these hold the rail without the need for braces. When it is necessary to put locomotives with blind drivers around the very sharp curves, five rails are used—two inner guard rails and a rail outside of the track on the inside of the curve.

Logging roads present a serious problem from creeping rail. All loaded traffic is in one direction, usually down grade. The common practice has been to permit the rail to run and to place points in the tracks to prevent buckling. Gaps that occur are filled with "Dutchmen," while broken angle bars are replaced. Some effort has been made to hold the track by driving piling in front of long ties and by tying the track to stumps with pieces of cable. In many instances rail anchors have proved successful, and are coming into more general use.

The cars originally utilized for hauling logs were separate trucks equipped with log bunks. Log ends are placed on a pair of these disconnected trucks and the loads are coupled up into trains. With light logs,

A Logging Railway Bridge with Timber Piers, Spanning the Skagit River

*Photo from C. C. Buskirk, Big Rapids, Mich.*

Narrow-Gage Engine "King of the Woods" at Camp 2, Near Dighton, Mich., in 1906

the load is sometimes fastened to the bunk with chains, but in the fir district there is seldom anything to hold the trucks together but the weight of logs on the bunk. Each truck has hand brakes.

In order to allow the use of air brakes, these trucks are connected into skeleton cars by means of a center sill that carries the air cylinder and brake rigging. Skeleton cars are built in lengths up to 70 feet. Some are manufactured by common-carrier roads, although most of the logs which standard railways haul are loaded onto standard flats provided with log bunks on the deck.

All the Western states have safety re-

*Photo by R. P. Middlebrook, 2744 Columbia St., San Diego, Calif.*

The "Trojan," a Sturdy Mallet on the Casper, South Fork & Eastern, Wheeling a Log Train Over a Wooden Trestle 142 Feet High and More Than 600 Feet Long

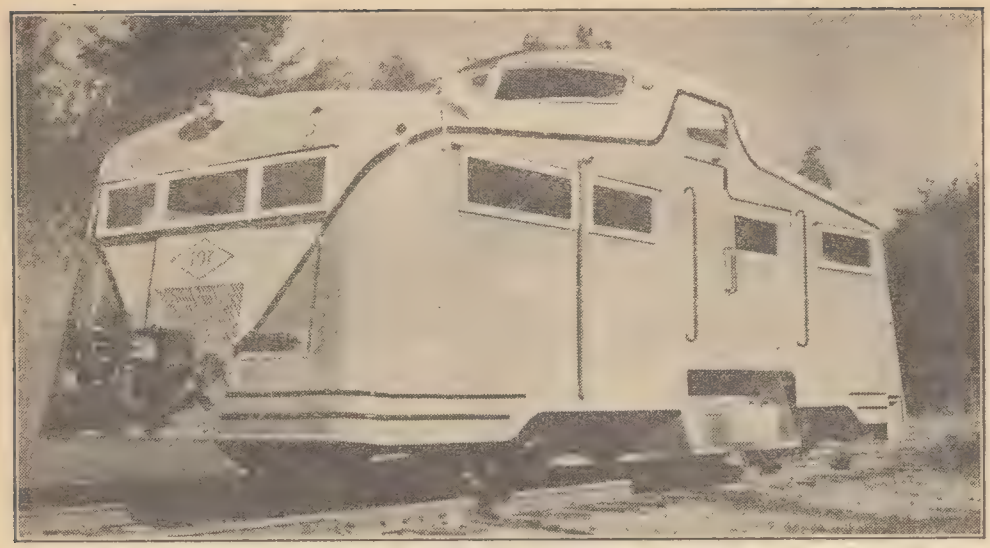
quirements governing the construction and operation of logging roads; but these requirements are not as stringent as those for common carriers, and allow the operation of trains without air on the cars. Skeleton cars for common carriers are built with platforms on the ends and wider walkway for the car's length.

POWER used for short hauls and switching is usually a geared locomotive. These machines are built in weights of from 40 to 90 tons, with all the weight on the drivers. For longer haul, a direct connected locomotive is employed, the most widely used being the Mikado (2-8-2) type. For service on heavy grades, Mikados are built with tanks for oil and water on the locomotive. In recent years the Mallet type has become quite popular, because it gives the advantage of heavier unit with light wheel loads. Mallets used in the woods are, of course, much lighter than those built for standard service; frequently they are built with saddle tanks.

Oil is the favored fuel. The fire risk is much less with an oil-burning engine; and this, with the saving in time and labor on handling, justifies the use of oil, although its cost is higher than that of coal or wood. Gasoline locomotives are built for light service but are seldom employed for hauling logs. Some logs nowadays are being handled by electric lines, but no logging road has yet adopted electric power.

Train length is normally limited to about twenty cars. Speed with loads seldom exceeds twenty miles per hour; but, due to the short hauls and speed with which cars are loaded and unloaded, it is not unusual to have a record of daily car-loading in excess of the total number of cars in service. This industry is very hard on cars. Often logs drop from the tongs onto the cars, while rough track and frequent derailments make car repairs a large element in cost of operation. This cost is much less with the log trucks and skeleton cars than it is with standard flats.

Train dispatching, conducted by telephone, is usually very simple. In some operations there is no dispatching system worthy of the name. Ordinarily one man gives all or part of his time to keeping track of the position of trains, and he directs all train movements. Naturally, train



Streamlined Standard-Gage Rail-Car Used by Victoria Lumber Co., Chemainus, B. C., Canada. It Was Designed by Robert E. Swanson, Inspector of Railways, Provincial Government, 602 Hastings St., W. Vancouver, B. C., and Was Built in 1939. The Car Has a Capacity of 45 Men, Can Run in Either Direction 35 Miles Per Hour, and Climbs Grades Up to 8 Percent. Driver Sits in Cupola, Where He Can Watch Track Ahead and Behind

crews are smaller than those on common-carrier roads, and the labor cost of train operation is less.

All of these factors combine to make the operation of logging railroads cheaper than that of common carriers. In some states the rates on common-carrier roads have been increased to such a point that many loggers feel they can build and operate their own roads more cheaply than they can pay freight. This has resulted in extension of some roads to the mills or tidewater. The logging roads are always being extended into more remote territory as the timber is cut off. Trackage of the average logging railroad includes from 20 to 60 percent that is laid on temporary spurs which are used but a few months and then removed.

Approximately 6000 miles of logging railroad are in operation in the Pacific Coast district alone. This figure sagged when the Depression came on, and is now showing the effects of the present industrial boom. Annual replacement of spurs probably amounts to more than 25 percent of the total mileage.

The railroad cost is often as much as 40 percent of the total logging cost, totaling somewhere around $30,000,000 a year in the Pacific Coast district. There is very little in either construction, operation or maintenance that can be called standard practice. Furthermore, the economics of railroad location, as applied to logging roads, has received no study that is entitled to be called scientific. The problem is difficult, but the magnitude of the industry would justify the expenditure of much effort in its solution. Accurate cost data of every phase of logging, as well as of railroading, is the first requisite of such a study.

A wide variation in natural conditions and operating methods makes it difficult to formulate rules and progress in the development of logging methods and new equipment soon renders the old data obsolete. The practice now prevailing is remarkably efficient. It has been the survival of the fittest and is a result of the good judgment and experience of a group of men who are typical of the best that American industry has produced. With such a background, there is every incentive to carry on, and the next few years should see logging engineering entitled to an even higher rank.

# Railroad Rimes

## Retired Railroader

I HEAR an engine's whistle now and then;
A whistle says a lot of things to me.
It says: "Old-Timer, you remember when
You made that student trip in Ninety-three?
Remember sleeping towns and farms at night?
And winter mornings' snow-topped trucks of mail,
And villages all blanketed in white?
And wheels that screamed along an icy rail?"
A whistle says: "Just smell that good coal smoke,
And hear those drivers sing along the track.
Old-timer, you belong with railroad folk."
And engine whistle says: "Come back!
Come back!"

—*Sprague O. Smith*

## I'll Take a Train

I DO not know why I should like a train
When all my ancestors preferred the sea;
Old paintings of their ships hang on my walls,
But boats and flying spray mean naught to me.
There's something in the swiftness of a train
That satisfies my hunger of unrest,
The everchanging landscape streams away
From sleepy town to purple mountain crest;
My fellow passengers get off and on,
We chat awhile and smile and lightly part,
I love blue dusk, the flash of friendly lights,
The homeward lumbering of a farmer's cart.
People you meet on boats do foolish things,
They fall in love without apparent reason,
They tell their deepest secrets to the world—
The waves go up and down in every season.
All those who like to roll may have the ships
That pitch and toss around in storm and rain;
I like to feel the steady turn of wheels,
An even keel, and so—I'll take a train.

—*Mary Farnum,*
*in Chicago Daily Tribune*

## Interurban

STANDING before the station
All gleaming in green and gold,
Waits the huge interurban
Imposing, sleek and bold.
Eager to fulfill its mission
As the air-pump sings an ode,
The big car seems determined
To protect its trusting load.

Fares are peering thru windows
The motorman's framed in the door,
Two bells ring out with a tinkle;
This car can tarry no more.
Across the bridge and away
Gears humming a beautiful rhyme,
Swift flight thru a shady glen
Wheels clicking in perfect time.

The whistle sounds a challenge
As crossroads come in view,
Green fields roll off to left and right
The stops are far and few.
And now the gears are quiet,
Firm brakes are clamping down
For you see the journey's ended;
We've arrived at the old home town.

—*Herbert W. Dosey*

Pepsi-Cola is made only by Pepsi-Cola Company, Long Island City, N. Y. Bottled locally by authorized bottlers.

# Railfan Excursions

NOW that spring is here, the season when boomers used to feel to a keen degree the lure of the open road, the 1941 program of railfan trips is getting into full swing. We are glad to publicize these excursions, and request that advance details be sent to us not later than the 13th of each month for publication in the issue of *Railroad* that will appear on newsstands about six weeks later.

*Flash!* Trip April 20th to Tuolumne in mother lode country, $4.25. Contact Calif.-Nev. Railroad Hist. Soc., 6421 Benevue, Oakland, Calif.

### Out of Jersey City, N. J.

A FANTRIP over the Erie on Sunday, April 27th, will be sponsored jointly by *Railroad Magazine* and the New York Division of the Railroad Enthusiasts, Inc. Itinerary will embrace the Erie's main line, Bergen cutoff, and Graham line, including the Wyoming and Jefferson divisions. Special train, with two dining-cars, will leave Jersey City terminal at 8:45 a.m., Daylight Saving Time; will stop at Ridgewood at 9:15; then Port Jervis; and will stop 70 minutes at Susquehanna for picture-taking; next a 35-minute stop at Carbondale; then other stops, and back to Jersey City, arriving 9:30 p.m. The 411-mile route includes much trackage normally used for freight only. Round trip, $3.75. Advance reservations should be made through Edward A. Hansen, trip chairman, Box 63, Packanack Lake, N. J.

### Out of Philadelphia

RAILROAD ENTHUSIASTS, Inc. (Philadelphia Division) announce a trolley trip over the lines of the PTC to Fox Chase, Melrose Park, Willow Grove, Manayunk and Bala, April 20. Trip will be made in a *paintliner,* one of the PTC's newly rebuilt cars. Car will leave from Woodland Depot at 12 noon. One dollar, payable in advance for this six-hour trip, should be sent to Sherman Pratt, 637 N. 35th St., Philadelphia, Pa. Fare if paid on board is $1.25.

### New York to Colorado

V. WAYNE LINCOLN, 1 Garrett Place, Bronxville, N. Y., writes: "I want to contact two railfans interested in narrow-gage to share expenses of one-month trip to Colorado in large late-model sedan in latter part of this summer."

### Out of Wilkes-Barre, Pa.

NORTH JERSEY CHAPTER of NRHS and *Railroad Magazine* will jointly sponsor a Sunday trip over Wilkes-Barre Ry., covering Hanover and Nanticoke interurban lines and city lines of Plymouth, Miners Mills and Hudson, also the famous Georgetown line with its almost incredible 20 percent grades. Fare, $1.50, should be in the hands of the committee by April 17th: Howard E. Johnston, 1228 W. 4th St., Plainfield. N. J., or Wilbur E. Wycoff, 157 Watchung Ave., North Plainfield, N. J. Two types of cars will be used. For date and other details not available at the time of our going to press, contact Mr. Johnston or Mr. Wycoff.

### Out of Chicago

CENTRAL ELECTRIC RAILFANS' ASS'N opened its 1941 season with a pre-inaugural demonstration trip on one of the Chicago North Shore & Milwaukee's two new streamlined *Electroliners* (page 133) from Chicago to Milwaukee and return. Taking a *first* ride on a train was quite a novelty for juice fans, who in recent years have been more accustomed to *last* rides.

The CERA already has nine additional trips lined up, including a run in its own private car 300 (formerly CNS&M) over the North Shore Line for a railfan reunion early in the spring. Fare, about $2.50.

Next will come an inspection trip over the Chicago, Aurora & Elgin, a third-rail line serving Chicago's western suburbs. Fare, about $2.

Approximately $1 will cover the cost of a jaunt over the remaining Marion, Ind., city lines of the Marion Railways.

Trips over the Cedar Rapids & Iowa City, the Waterloo, Cedar Falls & Northern, and the Charles City Western, three interesting interurban lines in eastern Iowa, will provide a *de luxe* week end of railfanning plus a couple hundred miles of trolley-riding and picture-taking, all for about $15 fare from Chicago.

Then comes a 36-mile trip over the Milwaukee Electric's Oconomowoc line out of Milwaukee, just before its abandonment. Fare from Chicago, $5.

Last excursion on the CERA board will be a triangle trip during the Labor Day week end over the Illinois Terminal from Peoria to Decatur to Springfield and return via the main

About 200 Winter Sport Fans Went on the Week-End Ski-Camera Safari to Norwich, N. Y., January 24th, Under Joint Auspices of the DL&W and Railroad Magazine

line. This trip will be held in conjunction with the National Model Railroaders convention in Peoria. Fare on the IT, about $4.

For further information about CERA activities, contact Charles A. Brown, 1240 Edison Bldg., Chicago.

**Out of Detroit**

MICHIGAN RAILROAD CLUB has planned an extensive tour for Memorial Day week end, as announced in detail in this department last month. The group will leave Detroit's union station at 8:30 p.m., Thursday, May 29th, via the Wabash Railway; and inspect rail facilities in Decatur, Ill., St. Louis, and Chicago, arriving back in Detroit on Sunday at 10 p.m. E.S.T. Rail fare for the entire 1069-mile journey will be around $16; special hotel rates may be obtained. For reservations or last-minute changes, contact Cary E. Brace, 14246 Dacosta Ave., Detroit.

### "Fifth Column" Stuff

SINCE he joined the army, he can now snap rail photos without danger of being molested on "fifth column" charges, we learn from Pvt. Geo. E. Horn, Headquarters Co., 1st Engineers, Ft. Devens, Mass. This is encouraging news for railfans who have already entered military service or are about to do so. The rest of us, however, are likely to be annoyed in our harmless picture-taking activities until the war situation has cleared up—whenever that will be. A typical case is cited by Francis Monahan, 10 Gerry Avenue, South Portland. Maine:

Two Railroad Girls: Miss Lena J. Brown and NP 1717. The Latter Is a Helper Engine Used on the North Coast Limited Between Butte and Whitehall, Mont.

"I was photographing equipment of the Bangor Hydro-Electric Co. at the end of their Main St. line, where the Maine Central passes overhead at the same point. A hysterical woman, evidently imagining that I was a spy plotting to destroy the trolley line and the MeC, called the Bangor police.

"Unaware of what she was up to, I went into the car barn, where I spent an hour taking interior views of the cars, snowplow and other work equipment. When I went out into the yard, the superintendent said the police had been looking for me and he advised me to phone the police station at once. This I did. The chief asked me to go over to the station house. It seems I was suspected of being a 'fifth columnist,' but my railroad pass and Electric Railroads' Ass'n. membership card helped to prove that I might possibly be an innocent person trying to photograph trolleys for the fun of it.

"Still, the police chief couldn't understand why anyone should want to snap street-cars. After much deliberation that decided to develop my three rolls of films, to make certain I wasn't walking off with Bangor's military secrets. They held me about an hour until they found only trolley pictures on my films. Then they released me with a warning to see the chief of police of my home town before continuing my photographic activities. All this had ruined my day, so I grabbed the next train back to Portland."

Advice for the cameraist caught in such difficulties comes from C. A. Williamson, R.F.D. 7, Butler, Pa., who writes: "When any fan is being molested by railroad police while not on company property (such as M. B. Cook's snapping of Frisco power from the public street, reported in March *Railroad Magazine*), he should make sure there are several reputable witnesses about and then let the policeman arrest him. After that, get an attorney and sue the railroad company for discourteous treatment. But be sure of course you don't trespass on railroad property and don't point your camera at anything that could be classed as a defense secret."

### Railfanettes

MISS LENA JENETTIA BROWN, who lives only four blocks from the Great Northern tracks in Cut Bank, Mont., writes:

"When I was a very small girl I preferred to play with trains instead of dolls. As I grew older, I read everything I could find about railroading. Friendly engineers and firemen along

the GN main line used to wave at me whenever they passed. Sometimes I even got rides in the cab of GN switchers. I have also been in the cabs of way freight and an NP 4-8-4 passenger engine. Such experiences thrill me greatly.

"My father used to work on the Nickel Plate as brakeman and engineer; he is now a hoisting engineer with a mining company. Two brothers of mine were also rails, one a fireman on the CMStP&P. the other a switchman on the Butte, Anaconda & Pacific; while an uncle used to be a GN pumpman.

"My more sedentary railroad hobbies include drawing train pictures. collecting steam engine and train photos, keeping a scrapbook of train orders and wreck clippings, reading railroad books and magazines, and corresponding with rails from all over the country and some abroad. I'm anxious for more pen pals right now, especially engine crews," Lena concludes.

* * *

A RAILFANETTE of 18 is so enthusiastic that she actually tried to get a job as engineer on the Central Vermont Railway. Miss Mary Grimes Gussman, 474 Brookline St., Newton Centre, Mass., says she's "always wanted something different and exciting to do, yet something that would benefit humanity." *(Elwin K. Heath of Barre, Vt., put us in touch with this girl.)*

"Consequently," she goes on, "at the age of thirteen I began working in my father's mill during my summer vacations, caring for the boiler and engine down in the boiler room. Last September I was sitting along the railroad right-of-way watching a long freight puffing up the grade toward Roxbury. *What a feeling of pride it must give the engineer to have so much confidence placed on his shoulders,* I thought. Then my mind turned to the war in Europe. Who knows but that the United States might become involved? Why couldn't a girl be as good an engineer as a man? Already women are driving engines in Russia and there are many female trolley conductors all over Europe and a few in America.

"This prospect seemed so wonderful that I wrote to the Central Vermont applying for a job in engine service. I stated in my letter all I knew about engines and boilers. Anxiously I awaited the reply, but when it came it was a refusal—a bitter disappointment. Nevertheless, I am still fascinated every time I watch a long train come into view and disappear in the other direction, even though it is unlikely I shall ever run a locomotive."

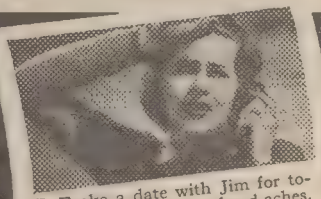
* * *

A GENEROUS sprinkling of railfanettes was noted among the 90 persons who attended the 1941 annual dinner of the Railroadians of America, held in the Pennsylvania Railroad Y.M.C.A., at which Pres. Tom Taber presided, Vice President Milton L. Bernstein delivered a humorous talk, a PRR quartette sang, and the Norfolk & Western's great, new technicolor movie *The Power Behind the Nation,* was shown.

* * *

MISS HENRIETTA CARTER, 176 Hicks St., Brooklyn, N. Y., around whom we wrote the article *Railfanette* in last month's issue, is represented at the National Watercolor Society's 1941 exhibition, New York City, with two watercolor sketches, both made on a recent railfan trip. One portrays two Pennsy engines, *The 1339 and the 3848.* The other shows a locomotive with the front parts removed, entitled *Strip Tease in Harrisburg.*


From the Private Diary of Gloria N---



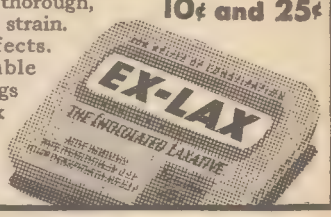
1 Broke a date with Jim for tonight. The way my head aches, I don't feel like seeing anybody! Guess I need a laxative, but I dread the thought of taking one.

2 Aunt Helen told me to try Ex-Lax. I hate the taste of laxatives—but Ex-Lax was a pleasant surprise. It tasted just like fine chocolate.

3 Slept wonderfully all night. Ex-Lax worked fine this morning. No upsets or anything. Headache's all gone, too. Sure hope Jim calls me tonight.

The action of Ex-Lax is thorough, yet *gentle!* No shock. No strain. No weakening after-effects. Just an easy, comfortable bowel movement that brings blessed relief. Try Ex-Lax next time you need a laxative. It's good for *every* member of the family.

10¢ and 25¢



# TRUE TALES *of the* RAILS

## Actual Happenings Told by Eye Witnesses

# Railroad Hasher

By HELEN WISSMATH

FOR quite a few years I dealt 'em off the arm. During those years I worked in restaurants and hash-houses from Los Angeles to Denver and even south of the Rio Grande. In nearly all of those eateries I served engineers and firemen, brakemen and conductors, brass hats and section men.

I'm a railroader myself. I was born in a three-roomed house alongside the track. Each room of this place was an old railroad coach with the wheels removed. I grew up in section houses, bunk houses, and several times we even lived in boxcars. For years my dad was timekeeper on extra gangs or bridge and bulding outfits. Later he became a freight agent, which position he holds today at Gunnison, Colorado. Dad is local griever for the Brotherhood of Railway Clerks. And, like all railroad men, he dreams of running a chicken ranch some day in the not-too-distant-future, when he gets his pension.

Whenever I meet any of the railroad boys who worked in Alamosa, Colorado, at the time I was a baby, they kid me unmercifully. I was about three years old then, and a tiny thing, even for my age. One day I got lost. A local switching crew promptly tied up and started hunting. The fire and police department were called out. My folks were frántic. The afternoon dragged past with the switch engine idle while the crew searched high and low.

At length, in desperation, Dad wandered into the depot and slumped in his chair. The waste basket, half full of scrap paper, sat under his desk. Wearily he kicked it out of the way. The kick woke me up. I raised and looked over the top. Yes, I was tiny enough to curl up and sleep comfortably in a scrap basket!

For some time after that I made a practice of going into Dad's office and taking an afternoon nap in the same place. Some of the railroaders took my picture sleeping there. The boys still have those pictures, and how they love to spring them on me!

As a Boomer Hasher I've Worked from L.A. to Denver, and in Old Mexico

When I was little more than a kid in pigtails, I landed my first job in a beanery. I was sixteen, and I had to fib to get the position. But then I've always had to furnish proof I was old enough to work, even on the last job I held a little over a year ago. You see, I never grew up. I'm slightly over five feet tall and weigh 110 pounds. I've coal-black hair, black eyes, and a "little girl" look that makes it difficult for me to convince a new boss I've been voting for several years.

Long ago I made a vow. I determined never to seriously consider any man who began hinting at matrimony until I had served that man several times at breakfast. The average male is at his worst when he comes down to the morning meal. Maybe he's carrying a hang-over. Maybe he slept like a log all night and woke up with a prodigious appetite. It makes no difference. Sit him at breakfast table, and as a rule, every bad point comes to the surface. I've served local big shots at breakfast and sometimes I had to fight myself to keep from crowning them with a platter of ham-and.

I've dished out food to preachers who acted like spoiled brats. In fact, I've served just about every kind of human critter from the King and Queen of Sweden on down to hoboes, yard bulls, and even assistant trainmasters. And this I can truthfully state: Mr. Average Railroader is a peach to wait on—at breakfast, dinner, or supper. As a rule, he's a cheery individual who doesn't demand impossible attention. He's a creature of habit, too. Any gal who waits on the run-of-the-mill

railroader more than twice can give a pretty good guess as to what he's going to eat.

A COUPLE of years ago I found myself unemployed. Yes, I'd been booming from here to yonder, able to get a new job whenever I wanted one. But Old Man Depression, or I guess it was Recession that time, had delivered some body blows to the hashing situation and jobs just weren't to be had. In a flash of inspiration I turned to Bill Ryan, who is one of Dad's friends and is General Chairman of the B. of R.C. Bill gave me a letter of introduction to Mr. Jewell, proprietor of the Denver Union Station restaurant.

The prospect looked swell to me. I'd heard that tips in the Union Station were better than average. So I took Bill's letter to Mr. Jewell. I found him to be a short, stout, blonde fellow. There was a deep twinkle in his blue eyes as he read the letter.

"Hm-m," he said, as though giving deep study to the situation. "Are you married?"

"No," I told him, "I'm not."

"Got a boy friend?" he asked.

*Here it comes,* I said to myself. Plenty of these restaurant men are like that. They figure that if a girl works for them, she's got to step out with them. Usually they begin with asking questions. Then they start making passes at you. And, brother, take it from a gal who's been passed at by just about every kind of male, you've got to know all the answers. You don't need long to learn 'em, either. So I replied, "No, I haven't a boy friend," and raised my guard.

The pudgy Mr. Jewell rubbed his hands together, beaming like a Cupid. His comment was unexpected.

"That's fine," he said, "Just fine! You know, Mis Wissmath, last year I married off fourteen of my waitresses. Fourteen," he emphasized, "and every of them a good match. Yes, sir," he chuckled, "I run a matrimonial agency of a sort. Girls like it, too. Every one of the fourteen comes down to see me now and then to tell me how she is getting along," he concluded.

But Mr. Jewell didn't get a chance to marry me off. He didn't even have a steady job open, but put me on the extra board, telling me to be patient till a regular turn showed up. I did wait around a while. Then I found a full-time position in a little railroad town, and I left Mr. Jewell. Sometimes I wonder what kind of husband, if any, I would have landed by sticking around the Denver Union Station.

Ever since I started to wait tables, I'd been wanting something. I didn't know what it was, but deep inside me was a gnawing dissatisfaction. Whenever I heard a distant engine whistle I got the blues. You know the feeling.

The morning I went down to work on my new job something clicked. The eating-house fronted on the railroad yards. Both standard and narrow-gage trains rolled in from the Continental Divide and from the eastern plains. Several busy switching crews worked in plain view of our front windows. Then it dawned on me. Here was what I'd been wanting all the time: the railroad with its clamor, its romance, and power. I'd finally come home!

The odor of restaurants, of sizzling steaks, of sputtering bacon and eggs, of hotcakes and waffles, had left me unmoved. But mixed with that indefinable aroma of the railroad. . . .

When a long freight rolled into the yards with smoking wheels and a tired Mallet coupled on the head end and I smelled the odor of hot wheels and brake shoes, coupled with that of the engine, I wanted to sing. When the five men comprising the crew trooped hungrily in and headed toward the washroom, I felt like rushing out to shake hands with them all. They were my kind of folks.

In an amazingly short time I'd grown to know all those standard and narrow-gage railroaders. I learned about their personal troubles. When one of them got in bad with the officials he came to me for advice. Yes, they even asked me about settling their domestic and financial diffi-

culties. How I enjoyed listening to the train and engine men talk about their cabooses, their locomotives, their adventures out on the high iron. And the friendly banter what flashed back and forth when a dozen of them were lined up at the counter was better than going to a movie.

I LIKE railroaders, their informal yet courteous way of treating you as an equal. Always when they enter a "greasy spoon" they sing out their cheery, "Hi, Myrt!" or "How's tricks, Helen?" And I'm going to let you in on something else. It amuses me the way the average business woman high-hats the beanery queen who serves her. But, brothers, the waitress may be pulling down more money per week than her snooty sister, and often does.

Mr. Railroader doesn't demand service from a white tablecloth. Seat him at an oilcloth-covered lunch counter and he's in his glory. Give him a paper napkin and a heavy mug of Java and there's never a peep out of him.

Eating regularly at this beanery was an old white-haired gent who'd run engines almost fifty years and had been recently pensioned. Everybody knew Tom Rooney. He'd never married. The first time he came in after I went to dealing 'em off the arm there, I made a hit with him. Tom simply took me under his wing, like a big-hearted dad; wouldn't allow anybody but me to wait on him. From the first time he saw little me going to work on a hot summer day without a hat, he began insisting I get one. I'd always gone bareheaded. Tom was certain-sure I was going to get a sunstroke if I didn't cover my head.

One day he went off on a trip and was gone for a week. The day he returned he came into the restaurant at about 12:30 p.m., chipper as a sparrow, carrying a big paper sack. The place was full of patrons, but that didn't bother the ancient hogger.

"Helen," he called to me as I came from the kitchen with an armload of sizzling steaks on hot platters, "I've brought you something."

He opened the sack and took from it a hat. But such a hat! The brim was fully twenty inches across, the crown was about fifteen inches high and came to a peak, like the helmets that Chinese coolies are pictured as wearing. Handing it to me, he chirped:

"Now I don't want to see you on the street again in this blazing sun without this *chapeau* on your head."

I thanked him effusively for the gift and wore it on the street from then on. It caused a lot of amusement among the other waitresses, but if I hadn't worn it I would have broken old Tom's heart. Later I made a lamp shade of the thing.

When my birthday came along, Tom Rooney strode into the dining-room at noon that day carrying a package.

"Helen," he grinned, "I got you a birthday present," and he unwrapped the package. Inside was a brown dress with brass buttons down the front, and it fit me perfectly. I appreciated his gifts because I realized they were given solely in a spirit of friendship.

In this same railroad beanery I won some local acclaim. The time was afternoon and switching crew were lined up at the lunch counter. We had a greasy, fat cook who'd been making passes at me ever since I arrived on the job. I'd warned him in no uncertain terms that I didn't like it. But his brain was probably fried out; my warnings were ignored.

When I went after the railroaders' steaks, this cook slyly pinched me. Now, anybody who knows me will tell you I've got quite a temper. I blazed up. Sticking in the meat block was a carving knife with a fifteen-inch blade. I snatched the knife from the block and carefully let it fly at him. The blade whizzed through the cook's cap, whisked it from his head, and pinned the headgear to the wall behind him!

There was one scared chef, believe it or not. He turned whiter than his coat. Another girl witnessed the incident. It was

too good for her to keep. She hurried into the dining-room and told the railroaders about it. Then she led them into the kitchen and showed them the cap still pinned to the wall with the carving knife.

Well, I came in for plenty of kidding over that stunt. The switching crew even took up a collection. A few days later they brought me half a dozen butcher and carving knives. "So yuh can protect yourself against all cooks in th' future, Helen," announced the genial engineer who presented me with this assortment of cutlery.

I NEVER worked in a Harvey House, but I've met several beanery queens who did. All of them tell the same story. A Harvey House job is tops in its class and the average girl, regardless how big a boomer she is, becomes a home guard when she lands a job in one of them. From Chicago westward to the Pacific Coast, along the Santa Fe, the Harvey Houses are synonomous with the best places to eat. Wages are excellent, tips are high, and the gals work only eight hours a day—which is more than you could say for most of the "independent" eateries. A lot of restaurant owners figure the eight-hour law for women is merely something written on a piece of paper and doesn't apply to them at all.

One time I was working for a beanery down in New Mexico. We had to put up all the lunches for the railroad boys, which was usually my job. Those lunches were almost banquets, and the lunch buckets always came back empty. Two of the hoggers had left implicit instructions regarding their sandwiches. One of them *must* have nothing but whole wheat bread, while the other was equally decisive in his request for white bread.

I mixed up their lunches one evening. White-bread engineer got whole wheat, and *vice versa*. If you've ever seen two unhappy hoggers, those boys were such a pair when they came in from that trip. For the best part of a week they complained about how I'd ruined their whole trip.

I remember the boomer switchman who declared, "Pay day on the Arkansas Central!" A likable, big, raw-boned, smiling fellow he was. He got a job switching the "hump" and ate on "pie books." At every meal he apologized because he was broke and couldn't tip. Then pay day came around. The boomer got his check and cashed it. Then into the dining-room he strode, carrying his brake club.

"Shove up, gals!" he yelled. "It's pay day on the Arkansas Central!"

Bless me, if he didn't give each one of us a five-dollar bill! Needless to state, there was one boomer who got *de luxe* service from that day on.

There there was a fireman named Ralph who ate regularly at the last place where I worked. He was a character all right. I'll give that boy credit for being able to take a joke even when it was on him. Anyhow, Ralph, usually came in off his run about noon. He followed a regular formula. If there was stew on the menu, he invariably ordered it. But first he would sit down at the counter, take up the "switch list" and meticulously read each and every word. Since we had quite a sizable selection, this usually took five or ten minutes, while the waitress fidgeted. At length the fireman would slap the menu closed with a sharp report and look up.

"I'll take some of that stew," he'd announce, like he'd made a brand new and unusual choice. "And," he'd continue, "I'll have a bowl of your dishwater."

Yes, soup was always "dishwater" to this railroader. At first it sounded original. After hearing the same word a few hundred times from him it became monotonous. So one day I took Ralph at his word. Our dishwasher had just drawn a sink full of hot water and filled it with liberal quantities of soap. So instead of soup, I filled the fireman's bowl with dishwater.

Ralph took a handfull of crackers and crumbled them into the bowl. Then he grabbed his spoon and dipped up a big mouthfull. Talk about sputtering, making wry faces and getting rid of the mouthfull!

"Hey," he choked, "this is dishwater!"

"That's what you ordered," I said.

He got the joke, but it didn't break him of the habit. Ralph continued to call soup "dishwater." He also referred to sugar as "sand" and butter as "grease."

DURING my years of working in beaneries of one kind or another, I'd had many proposals of marriage. But my heart was still free. Then one day—at breakfast time—a tall, lanky, easy-going fellow grinned up into my face. His brown hair was unruly; his eyes were gray and twinkling. We got talking together. I learned that this chap had been a railroader on the Denver & Rio Grande Western, like my dad. He had started as engine watchman and worked up to conductor. Then he had quit the road and turned to writing. He's written many railroad stories and articles; the name is Gilbert A. Lathrop.

Gil confided to me there at the breakfast table, during a lull in work, that he was writing a story about a hasher. He said his practice was to get his facts from life, and would I give some pointers for this new yarn? Sure, I would, and did. We met again the following morning at the breakfast table. Soon we were meeting in the evenings, too, and I found myself wearing a solitaire diamond.

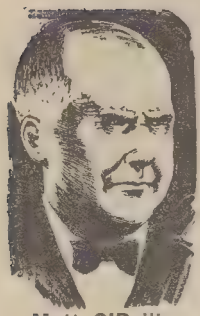
To bring my life story up to date, Gil and I are now married and living at Los Gatos, California. The address is Chemeketa Park. Gil is still writing stories, as you know.

Every time this railroad man of mine begins to run out of ideas, we climb into the old automobile and drive almost forty miles through the night, to where the highway parallels the Southern Pacific main line. There we park the car and wait. Pretty soon we hear the deep tones of a chime whistle; then a silver pencil of brilliant illumination shows through the muggy darkness. Next comes the whine of wheels, the click of running gear, the mutter of exhausts and then the Packet Freight roars past, bound for Los Angeles.

Always I feel a lump in my throat when the caboose markers blink out of sight. Love of the iron horse and the railroad on which she runs is something you can never get out of the blood, once it has crept in. And that goes the same whether you're a railroad man like Gil or just a plain hasher like me.

# Old Days on the Pere Marquette

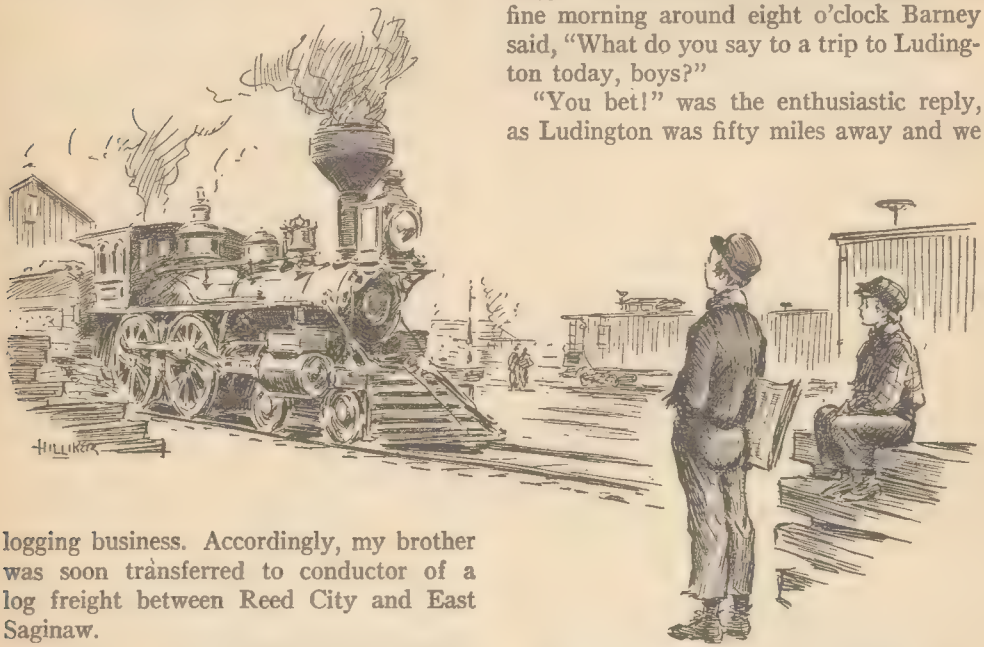
By MATT O'REILLY


Matt O'Reilly

MY RAILROADING started back in 1873, the year of the big panic, when as a twelve-year-old boy I caught free rides on freight trains, and hung around the yards much of the time, eventually landed a job. I was one of three brothers. The younger one and I thought we were entitled to special privileges in those days, for wasn't our own Barney one of the best brakemen on the west end of the old Flint & Pere Marquette? Although I am now a veteran rail in my own right, a lot of my information about the old times came from the mouth of my older brother.

Barney O'Reilly was born in Albany in 1851. Father had been working on the Erie Canal, but he saw that the iron horse was bound to nose out the canal boat, so he threw up his job and moved us to Flint, Mich. There he went work as section foreman on the F&PM; while Barney, as soon as he was eighteen, was hired as waterboy.

Within a year Barney was braking on a gravel train. The vast pine forests of Michigan were just being developed, and the railroad was constantly putting on additional freight runs to take care of the logging business. Accordingly, my brother was soon transferred to conductor of a log freight between Reed City and East Saginaw.



Almost Every Saturday My Younger Brother and I Would Play Around the Railroad Yard

On this run Barney first showed his independent manner of railroading. Sometimes if he couldn't get his orders fast enough, he'd take a flag and walk ahead, flagging the train to the next section. Of course, if he met another train on the same track he had to go back. That sort of procedure was perfectly legal in those days, as the book of rules wasn't nearly so all-embracing as it is now. One day, when it came near train time, the depot at Reed City was locked up and the station agent wasn't on hand to give the flimsies. Barney grabbed a crowbar and pried up the station window. Being handy with the telegraph key, he called Saginaw for orders, received them, and jumped on his train. As the long freight drag was steaming off, the agent ran up, shaking his fist with anger at the liberties that had been taken with what he regarded as his property. The agent tried his best to get Barney fired, but I guess that incident was an offense not listed in the old rulebook.

Almost every Saturday my younger brother and I would play around the railroad yard, frequently being allowed to maneuver the switch engines while the hogger would catch up on his reading. One fine morning around eight o'clock Barney said, "What do you say to a trip to Ludington today, boys?"

"You bet!" was the enthusiastic reply, as Ludington was fifty miles away and we didn't get a ride that long every week. We hurried down to the yard, climbed aboard the train, and saluted Charles Nelson, the engineer.

"Good morning, Charley," I said, "we're going over the line with you today."

"All right, boys," he replied. "Watch the steam. Keep her under the blowing off point of 120 degrees."

Then Charlie curled up on his seatbox with the latest copy of *Nick Carter,* as he usually did when we were along to relieve him of the arduous part of his work. After we had gone a few miles we spied a comely girl standing at a grade crossing and waving her handkerchief at us. Charley stopped the train. His brother Will, the fireman, assisted the young lady into the way-car and set about entertaining her. I never

saw Will Nelson bother very much about his duties in the engine.

We had proceeded only about eight miles further when another damsel appeared, also waving a distress signal. Again Charley shut off steam. This time he got out himself to escort the passenger into the way-car, saying to us:

"You youngsters can manage things by yourselves for a while. I want to have a chat with this school teacher."

So there we two kids were alone in the fast-moving engine, while the entire crew were all behind chatting with the ladies! We were approaching Baldwin, the only telegraph station on the line.

"It's going to look sort of funny when the station agent sees us running the train," my small brother remarked dubiously.

In five miles we were due to stop there, and still Charley failed to appear to take the throttle. At length I got the idea of whistling for cattle on the track, even though there were none. The noise had the desired effect. In a couple of minutes the two Nelson boys came scrambling over the tops of boxcars in order to look busy when we stopped at Baldwin.

MAYBE life wouldn't have been so free and easy on our train, but for the fact that the superintendent was married to Charley and Will's sister and didn't want to get in bad with his well-to-do in-laws by asserting too much authority. At any rate, those were happy days for us. But a jolt was coming. One morning in 1873 when I opened my pack of newspapers my eyes caught some startling headlines: *New York in Panic—Railroad Stocks Nearly Worthless—Gould and Vanderbilt Hit Hard—Many Banks Close Doors!*

That very afternoon my mother sent me to the store for groceries. I told the shopkeeper casually, "Put it on the bill," as the families of most railroaders were accustomed to doing.

"Not this time," the grocer replied with a sad smile. "The Flint & Pere Marquette Railway Company is busted higher than a kite. Your brother and father won't be able to pay any bills for quite a while, or I miss my guess."

This dire prediction turned out too true. In fact, all over the country at that time railroaders were thrown out of work; engineers were demoted to the left side of the cab, conductors went braking, and shacks hunted jobs. Dad was laid off from his section work. The railroad didn't need Barney either, since only one freight and one passenger train a day were being run over the line. In the vicinity of every railroad yard hobo jungles were springing up. They weren't inhabited solely by ne'er do wells, but in some cases by respectable, hard-working railroaders who were sitting tight so they could be ready to jump at the first call for men.

The principal food that most of us had was cornmeal, and we all went on a diet of Johnnie cakes, cornbread, fried mush, and every other corn dish imaginable. The only money our family had coming in was what I earned by popping corn and selling it to passengers on the few trains that went through.

Eventually Barney got tired of hanging around waiting for work which, it seemed, would never come. He decided to walk the fifty miles to Ludington, looking for employment along the way. A man was too careful of his job in those parlous times to hazard giving even his best friend a free ride. Nevertheless, it was lucky for Barney that he walked, for he got work as section hand at Black Creek, an insignificant place he probably wouldn't have stopped off at otherwise. Barney even managed to get me in on the job too; and that is when my seniority started, sixty-one years ago.

Thus employed, we were no longer affected by the panic of '73. We stayed at Black Creek for years. In the spring of 1881 a new lumbering development sprang up nearby at Chase, and we were sent there to lay tracks. Barney had now pushed his way up to foreman, and I worked under him.

One day while we were laying ties, I

witnessed a strange phenomenon. A warm, damp breeze came up and soon it started to rain. The shower lasted only a few minutes. When it stopped, we looked down and saw that the ground was covered with thousands of tiny frogs, each about the size of a boy's fingernail! I might scoff at other men's tales of such happenings if I had not seen this epidemic of frogs myself.

The section work got a little too hard for us, so Barney suggested using our brains instead of our brawn for a while. So for several years we used our knowledge of the pine forests, advising a New York surveyor who was buying up wooded land for eastern firms. That, too, became tiresome and we longed to get back on the railroad. By that time Barney had no trouble at all in getting on as conductor on the Pere Marquette. The name had been changed from F&PM to PM during the panic.

Barney was assigned to the road's first steam shovel, while I was made foreman of a crew of six men laying tracks into the pine woods, connecting some of the developments I had helped to start with the main stem. During the winter when the steam shovel was out of service, Barney held the combined jobs of conductor and foreman on the work train, for which he received $75 a month plus board. This train hauled ties and tracks to section gangs all along the line. I worked off it myself for a short time.

There were, of course, no air brakes in those days. You had to scramble over the log-covered flats and fasten down the brakes on each car. Otherwise the light engines we used then couldn't have held back a train of thirty loaded cars on even the slightest grade. We didn't know this, however, until one day we stopped at Petoskey, Mich., and the hogger went under the locomotive to tinker around with a hammer and wrench. He was just getting the work started when a score of horrified spectators saw the train start to roll, and pass right over the engineer, cutting him in two! Subsequent investigation showed that the throttle had been clean of steam pressure, but the train had been standing on a section of track, just a trifle off the level, and the slight pressure of the hammer had put it in motion.

THAT wasn't the most unusual accident I witnessed on the Pere Marquette. When we were rolling logs eastward in the boom years following the panic, train crews would often work twelve hours at a stretch and then retire for shut-eye. When they had slept for only a couple of hours, there would be another train ready to go out. The callboy would be around, sometimes armed with a pan of ice water, to get sleepy men out on another trip. As a result, I saw many cases of engineers sleeping in their cabs while the fireman watched the lights and blew the crossing signals, in return for which favor the hogger would throw the logs in the firebox while the tallowpot snatched a few winks. Conductors and brakemen also used to cooperate in this way.

One night while I was braking on a southbound freight, the fireman was watching the track, while the throttle-jerker nodded, half asleep but still sitting upright. We were pounding along at almost a mile a minute, the engineer swaying peacefully to and fro in his seat, his red bandana waving in the breeze from the open window. Suddenly the train turned a slight curve. The engine gave an abrupt side lunge and out of the window went the unfortunate engineer. Our fireman brought the train to a stop, and we sadly picked up the "body" and carried it to the next station. Then the train proceeded through the night, with the fireman now officially in charge of the engine and the brakeman up front tending the firebox.

A week passed and the "dead" engineer showed up for duty. Instead of being welcomed as one returned from the grave, he was discharged for dozing on the job; and from that day on, the unlucky engineer was never able to get back on the Pere Marquette, even as a crossing watchman.

Yes, sir, in those days railroading was

tough. But sometimes when it got unnecessarily brutal, we wouldn't stand for it. I remember one time I was working with a section gang laying a sidetrack, at the fag end of the panic of '73 when jobs were still scarce. The roadmaster was lording it over the crew as if we owed our jobs to him, shouting and swearing out of sheer ill-nature. Finally one of the boys, a sturdy farmer lad named Kearney, spoke up to him:

"Mr. Flynn, we're doing this job all right. We're glad to have the work to do, but we're not paid to be the goat of your temper. If you don't lay off, I'll stick you in the tool closet."

This idea struck a responsive chord, and we all shouted, "Let's put him in the closet!" In unison we picked up the apoplectic roadmaster and locked him up. Flynn started hammering on the door and bellowing for Pat Buckley, the section boss. Buckley came running up, an upraised shovel in his hand, as if expecting to save someone's life. I tripped him as he ran, and we shoved him in the dark closet with Flynn.

After that, somebody on the outside sent for the sheriff, and soon a mustachioed gentleman sporting a big star came along, gun in hand. As all the section men in the front put up their hands, someone from the back threw a wrench which knocked the gun out of the sheriff's hand. Thereupon we added Mr. John Law to our collection of prisoners, and stood by waiting for the three men in the closet to quiet down. When at length they got out of breath, Kearney explained through the door to Buckley how the roadmaster had been riding us, and agreed to let them all out if we wouldn't be prosecuted. Buckley and the sheriff agreed, so we unlocked the door. Buckley took Flynn away with him, and that's the last we ever saw of the loud-mouthed roadmaster.

In those days lots of men used to get promotions without regard to seniority rights. A brakeman might start out of a local freight and find himself a passenger conductor in six months' time, provided he belonged to the same lodge as some "brass hat" or, better still, had a thousand dollars invested in the company. Barney and I never had any money to sink in railroad securities and we never joined any lodges, so we had to wait for our seniority to draw conductors' pay. First Barney became a freight conductor, then he was put in charge of a passenger train. My promotions were several years slower than Barney's, as he had started before me.

Barney Stayed with the Pere Marquette 61 Years

ABOUT the time I got my passenger run, the company developed the idea that their conductors were stealing money by not turning in all the cash fares. We were called in by the super for a lecture, one by one. When my turn came to appear on the carpet, the superintendent offered me a chair, and started off:

"We're turning over a new leaf in regards to picking up fares, Matt. From now on every passenger must have a ticket,

or off the train he goes. You are not to collect any cash fares or honor any passes. Nobody rides free. Remember your orders, now: Give rides to no one, not even your father, unless he has a ticket."

Six months passed and there were many complaints about the new rule. Many a passenger would run to catch the train at the last minute, expecting to pay his fare in cash, and be dumped unceremoniously off the train somewhere in the sticks. I solved the problem partially by having my brakeman go through the train before we started, calling out:

"Anyone not holding a ticket, please get off the train and get one."

That way we at least saved the unpleasantness of ejecting passengers out on the road as the rules required. One day we were running at our usual speed and an official's car had passed us about a station back. Suddenly we were flagged to a stop. Looking out the baggage-car door, I saw the official's car and engine in a ditch. Nobody was hurt, but the brass hats climbed aboard our train to finish their journey. The minute the eight new passengers got on board, I remembered my orders: "Let nobody, even your own father, ride without a ticket." I approached the officials, calling pleasantly, "Tickets, please." The superintendent, who happened to be one of them, waved his hand for me to pass by.

"That's all right, Matt." he said.

"Tickets, or you get off," I maintained.

"Don't be absurd, Matt," the super answered sharply. "These men always ride free. They own this road."

"I'll bet a dollar they don't ride free today," said I. Going back into the baggage car, I got my brakeman and asked him if he'd help eject the group of would-be free riders.

"It'll cost us our jobs," agreed the shack, "but this is as good a time as any for a showdown on that silly ruling. I'm with you."

We approached the officials. Again I called, "Tickets, please." The men just grinned, but their grins faded when I pulled the bell-rope and the train came to a stop. I took Mr. Super by the coat collar, while the brakeman assisted from behind. As he landed on the ground, he shouted, "This will be the last run for both of you!"

"We're just carrying out your orders, sir," I replied politely.

Well, the other seven men hopped off and they all walked towards the next station, eight miles away. To make it worse, a light rain was falling. I never inquired whether or not the brass hats bought tickets before they got on at the next station, but the brakeman and I both turned in our resignations the minute we reached the end of the run.

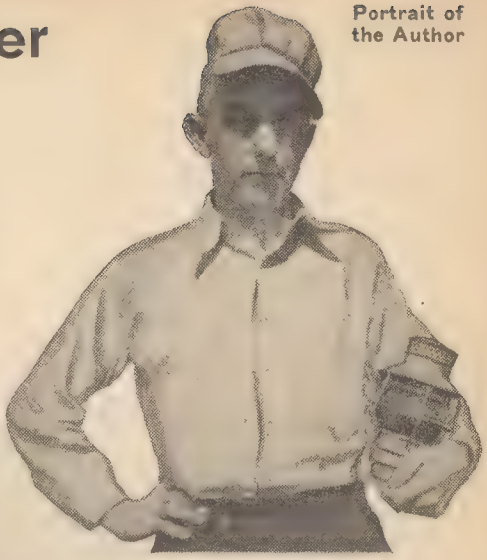
Next day all the papers carried the news about a passenger crew being fired for obeying orders. The story passed along the line and the laugh was on the management. My brakeman and I were reinstated. A month later, all the passenger conductors were called into the super's office and informed that passes and cash fares were to be received, but to protect the company, spotters had been instructed to be more active.

Barney stayed with the Pere Marquette for sixty-one years. Toward the end he was getting weak in the legs. At the time of his last promotion, to the mail train between Detroit and Toledo, he had to be lifted into the mail car. He was more than ripe for a pension, but the road was in receivership then and there was no appropriation for the purpose. However, in due time the company was reorganized and the first pension check issued under the new management was made payable to my brother, Barney O'Reilly.

Meanwhile, I had left the Pere Marquette. After working on a number of small pine roads in Michigan, I eventually wound up on the Canadian National—which is now paying me a pension and keeping me alive to dream about the happy half-century I spent in rail service.

# Short-Line Boomer

By LAD G. AREND



Portrait of the Author

MOST boomers have put in considerable time working on big railroad systems. My case is different. For thirty-two years I roamed around the country, with a modest record of fourteen different roads, practically all of them small pikes. My jobs ranged from extra brakeman to General Manager. Besides that, like many other rails, I have gone in for hobbies. I collect railroad photos and build scale models. At one time I even attempted to organize a group of fellow boomers to take over and operate abandoned short lines on a cooperative basis.

It all started because I was fascinated by the smell of engine smoke from trains of the old Indianapolis & Cincinnati (Big Four) and the Ohio & Mississippi (B&O). These trains ran past the rear of my home in Cincinnati, where I was born on Washington's birthday, 1885.

I remember, at the age of ten, casting wistful eyes on a dandy wind-up train which a neighbor's son was operating in the back yard next door. Never at any time have I wanted anything with more intensity than I desired such a toy. But my parents couldn't afford it; so I built myself a model train, mostly out of wood, and laid tracks upon which to run it around the yard. These tracks were narrow strips of wood nailed to crossties. I also built three way-stations, one turntable and two bridges. Our yard had a slight grade which provided my power. I would place the train at the top of the slope with a block of wood under one of the wheels. Then I'd stand at the other end of the yard, remove the block with a long string, and thrill to the sight of a train speeding down grade.

As soon as I was out of school, I made the rounds of local railroad offices and was delighted to be taken on as file boy in the claim department of the Cincinnati Northern and Big Four. Toiling all day and attending college three evenings a week, I worked my way up to the rank of claims investigator on the Big Four. But in 1909, when the office was transferred as the result of a fire, I was seized with wanderlust and moved on to Detroit.

There I landed a job as claims investigator with the Michigan Central. Homesick, I soon returned to Cincinnati, to work as bill clerk for the old Chicago, Cincinnati & Louisville (C&O). *Work* is the word for it. In those days a bill clerk reported for duty at 9 a.m. and labored steadily until he got through, which in my case was often 3 a.m. the following day. This, plus the fact that we sometimes had a seven-day week, caused me to go job-hunting again.

Still a claims investigator, I took a fling at the payrolls of the Kanawha Dispatch Fast Freight Line in my home city and the Chesapeake & Ohio at Richmond, Va. When summer came, I quit Richmond because the climate was too hot, but foolishly took a job even further South—with the Atlantic Coast Line in Wilmington, N. C. Well, I didn't like Wilmington a bit. The only amusement I could find there was a picture show located in an old circus tent. The night I left, I had plenty of com-

pany aboard the train; twenty other ACL employes were pulling out at the same time, all bound for home or other positions.

Back in Cincinnati again—I seemed to make that city my base of operations—I applied for a job with the Louisville & Nashville's claim department. Before long I received a letter containing a pass for Louisville, Ky. Louisville had plenty of attractions. I worked there about six years, during which time I was advanced to the vice president's office, handling rate cases that came up before the Interstate Commerce Commission. Six years was a long stretch for a boomer to stay in any one place. As a matter of fact, I quit three times during that period, but on each occasion was persuaded to reconsider my resignation—twice by my superiors and once of my own accord when I didn't see them coming after me.

IN 1918 I decided to be a big frog in a small pond rather than a small amphibian in a lake; so I applied to John Ringling, the circus producer, for a job on his short line, the Dayton, Toledo & Chicago, hoping to work myself up to General Manager on a pike of that size. Mr. Ringling was favorably impressed. I went to work for him as claim agent, rate clerk, revision clerk, traveling auditor, extra brakeman, conductor and ticket agent.

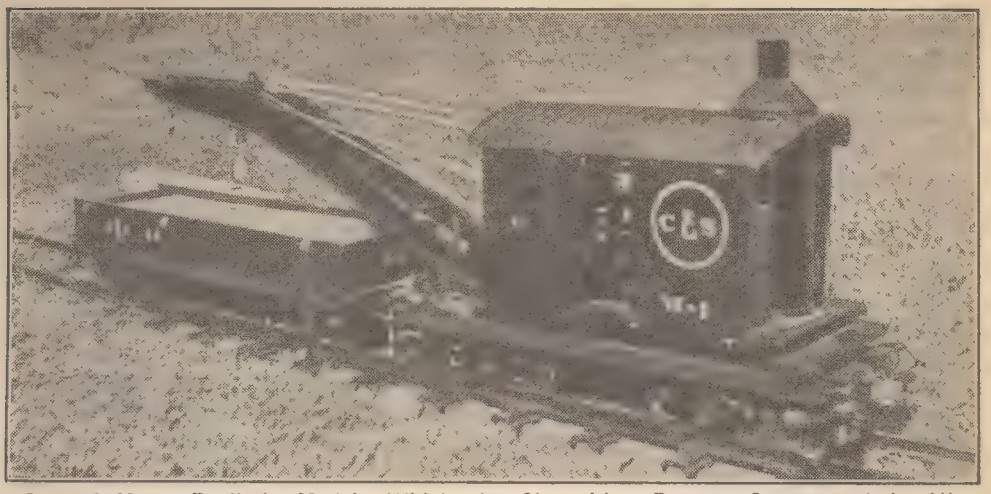
As ticket agent it was my duty to open up the station at 6.30 in the morning and sell tickets till 7 o'clock. Then at five minutes before train time I would slam down the window, don a trainman's uniform, sign the register, pick up my orders and clearances, and go out as conductor on the same train for which I had just sold tickets. I wonder if any other boomer duplicated that experience.

We had a lot of coal thefts on the DT&C during my first winter on the road, so I was sworn in as special company agent and given a revolver. Our tracks ran through one of the poorest sections of Dayton, on a slight grade which made it hard going for one of our little engines hauling a trainload of coal. More than once the thieves would audaciously scramble on to the cars while we were laboring up the grade, and would set the air. When the train stopped they would unload tons of fuel. They generally traveled in gangs too large for me to handle, so the DT&C got the city to place three uniformed policemen on our trains when going through that part of the city. More than once the blue coats would leap out of the caboose and arrest five or six very much surprised coal thieves.

But the crooks were smart, too, and they got into the habit of waiting till our train got outside the city limits before boarding it. One dark night I was poring over my orders in the warmth of the crummy, when I heard suspicious noises in the cars ahead. I stepped out on the platform and aimed my .44 right smack at the wall of a hopper in front of me. The reverberations of the shot on the metal car must have made the culprits think I had a cannon ready to play on them. Instead of climbing down the sides of the cars, they jumped right off and scrambled out of sight in the weeds. They had already unloaded a lot of coal, but the fear of the old DT&C was so strong in them that nobody picked up the fuel for more than two weeks.

In the fall of 1920 I was furloughed from the DT&C for a couple of weeks to do a special job for Mr. Ringling. He had bought two Pullman cars for his road in Ardmore, Okla., and I was commissioned to ride them from Wilmington, Del., out to the West Coast as caretaker. One of the cars, the *Sunny Side,* was an observation end car, while the other, the *West Farms,* had done hospital duty in the World War but was now turned into a combination car for the ONM&P. You can bet I had fun housekeeping in my own private suite of Pullman cars. The *West Farms* was equipped with an icebox, which I got filled whenever we passed a railroad icehouse, to freshen the eatables and drinkables with which I had it stocked.

During the last leg of the trip I was attached to the rear of a Frisco passenger train out of St. Louis. By the time we arrived at Monett, Mo., all the coaches were



One of Many Realistic Models Which the Short-Line Boomer Constructed in His Spare Time Is This Colorado & Southern "Big Hook"

filled and the Frisco wanted to stow passengers in my suite. My obligation to Mr. Ringling would not permit this.

In July, 1922, the DT&C suspended operations and all the employes were laid off except the receiver, the auditor, a stenographer and myself. A flood dam was being built at Englewood, O., and our tracks were used to haul the material part of the way. It was my duty to act as pilot whenever a train, owned and manned by the contractor, went over our tracks. This lasted until March, 1923, when I had the sorrowful distinction of piloting the last train over the DT&C before it was torn up.

I next worked a few months as chief traffic agent on the Sewell Valley Railway (C&O), quit and got a job as chief clerk to the superintendent of the Cincinnati, Lebanon & Northern. The morning I started at the CL&N I received a wire from the St. Louis & Hannibal, offering me more pay and a better chance to work my way up to General Manager. Accordingly, I turned up in Hannibal, Mo., several days later to assume my new duties as traveling auditor, station accountant, and interline freight auditor.

IN traveling from one depot to another to audit accounts I would always ride on the last seat of the rear car, a habit which might have cost my life. You see, about two miles north of the StL&H station at Silex, Mo., there was a shale mine, connected to the main stem by a spur with a slight down grade. One day when the southbound passenger train passed the spur leading to this mine, the mine people had just pinched a loaded car forward to shove in an empty. The loaded car got away, rolled down the track, split the switch, and started out on the main line behind the passenger train in which I was riding. The heavily loaded freight car followed us just out of sight. When we had been stopped at Silex a minute, it plowed into the rear end of the train, injuring a number of passengers and throwing shale all over the track. Luckily for me, I had the habit not only of riding the last car but also of hopping off the train the minute it stopped, to get down to business with the station agent; so I was safe inside the depot when the collision occurred.

Another incident at Silex which I will never forget occurred in the winter of 1924. Because of a rainy, sleety blizzard, I had to stay over night in the depot, the hotel being filled up. I nearly froze in that draughty station while trying to sleep on the hard board bench in the waiting-room, but consoled myself all night with the thoughts of being home in my regular bed

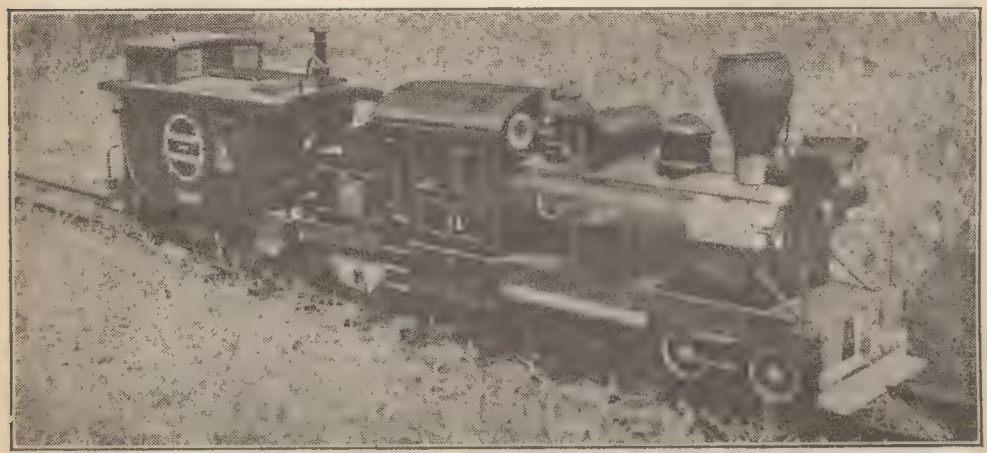
the next night. Came morning, I found that the telegraph wires were down, the roads were blocked, and there would not be a train out of Silex all day! So the following night I had to curl up in the depot a second time.

While working on the StL&H I lived at Mrs. Martz's boarding-house in Hannibal. Because I always paid my board two weeks in advance I was considered a star boarder. Although the nature of my work made me miss a few meals at the boarding-house, I received more than my money's worth in the form of good food tastefully served. The waitress was quite attractive and I took a shine to her. Millie Varvell got to like me, too. Although it was against the rules of the house to date the waitress, Mrs. Martz never interfered when I took Millie out of an evening. And nobody seemed greatly surprised one happy day when I slipped a plain gold band on Millie's finger, making her Mrs. Lad G. Arend.

In December, 1925, my feet began to itch for more short-line adventure; so I tried working as assistant auditor on the Chicago, Attica & Southern at Attica, Ind., for a year and a half. This job was interrupted when I accepted a position with the Litchfield & Madison at Edwardsville, Ill. Millie and I boarded a train for Edwardsville, and got as far as Hannibal, Mo., when the the sum total of our traveling discussion caused us to change our minds. We got off the train and I wired back to Attica to see if my job was still open. "Holding job, come on back," replied Harry Butt, chief auditor, and we went back.

But a boomer is one breed and a home guard is another. I was continually looking forward to the next job "on the other side of the mountain." A few months later I was offered a position with the Ft. Smith, Subiaco & Rock Island at Paris, Ark. This sounded interesting, so Millie and I packed up again. We boarded a train for Paris on a Saturday afternoon, immediately after my half-day's work, without even saying good-bye to Mr. Butt. Luckily, we didn't stage such a farewell scene. We had proceeded no further than Springfield when I changed my mind again. On Monday morning Mr. Butt saw me working as usual for the Chicago, Attica & Southern without realizing how close he had come to losing me two days before.

In June, 1927, I quit the CA&S and went to Toluca, Ill., to serve the Rutland, Toluca & Northern as traffic manager, auditor, station agent, and conductor. With the exception of two brief periods when I switched to the Rapid City, Black Hills & Western as dispatcher, and the Macomb, Industry & Littleton as General Manager,

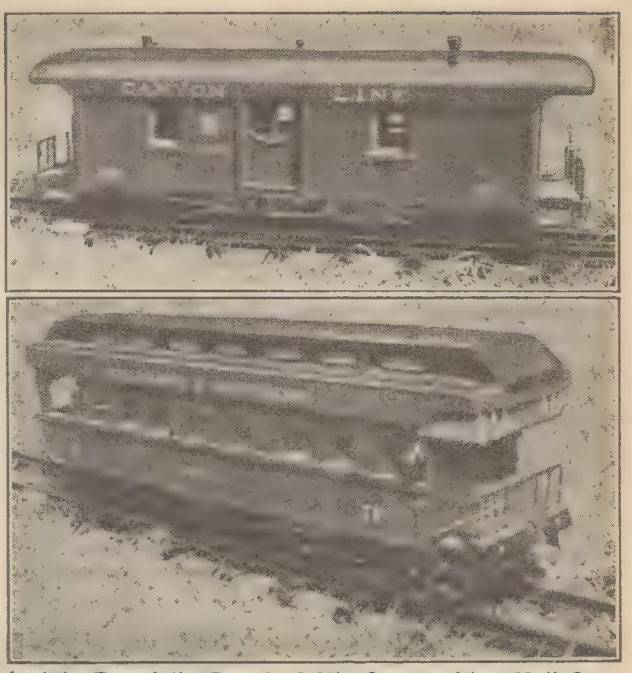


Mr. Arend's Miniature Reproduction of a Shay Geared Engine Was Built from a Less Modern Prototype Than the One Pictured on Page 56

I remained with the RT&N "steadily" until it went into receivership in 1931.

The variety of work I handled on that little pike made life unusually interesting for me. I shall always remember my years on the RT&N with pleasure and a certain wistfulness.

I got one of the biggest scares of my life while working on the RT&N. Just south of McNabb, Ill., we had a bad road crossing, and just beyond the crossing around a slight curve, was a bridge. One day as we were easing through that territory I was about to settle down in the crummy to write up my train book when, looking out, I saw the car ahead of the caboose toppling over. I was trapped. My only thought was that I was about to follow the rest of the train into the river.



Lad Is Especially Proud of His Canyon Line Mail-Car and His C&S Parlor-Observation Car. The Latter Is Equipped with Seats and a Smoking Room

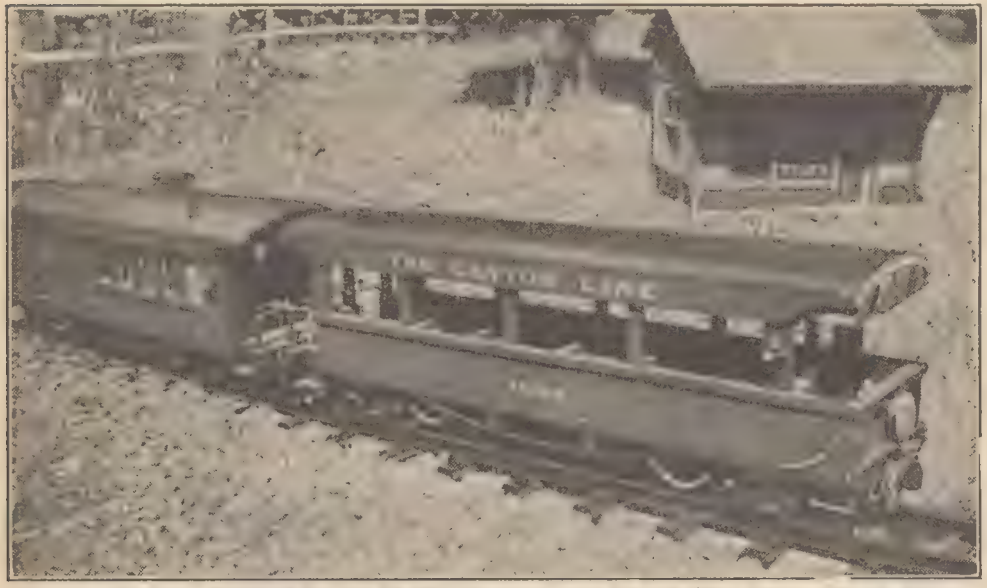
Minutes passed and we just stood still on the track. When I finally mustered courage to look out the window again, I found out that the car in front of the caboose, a new one and heavily loaded with flour, had broken loose from the train in taking the curve and had scooted down into the fields. About half an hour later the forward part of the train backed up for me, after the engineer had noticed that he was pulling lighter and investigated to find that he was missing two cars.

ALL in all, I enjoyed working on the RT&N, even though my day was long. It began at 7 a.m. with station work, publishing tariffs and answering correspondence, and was followed by a round trip as train conductor which took from 1 till 6 p.m. six days a week. When at last the RT&N was suspended, we wound it up in a blaze of glory with a cornfield meet, staged near Magnolia, Ill. To the tune of a quarter apiece, we drew a big crowd to see RT&N engines 50 and 51 crash into each other head-on at full speed.

After leaving the RT&N I had plenty of time to work on my pet idea. I had always contended that many short lines which were being abandoned by their present managements could be run on a co-operative basis by railroad men. This plan would do away with the need for high-salaried executives, as each employe would be a partner in the enterprise. I organized more than a hundred job-hunting rails, most of them boomers, with this goal in view. There was plenty of enthuiasm. Also plenty of railroad experience. We drew up regulations as to how our proposed road should be run, and each man reported what job he was best fitted for. Everything seemed to be going fine.

Then one day we learned of a narrow-gage pike that was about to be abandoned. The purchase price was not exhorbitant and it seemed like a good bet. But alas!

Exemplifying His Love of the Iron Trail Are These Models of C&S Narrow-Gage Equipment Which Lad G. Arend Patiently Fashioned without a Kit or a Lathe



Because He Once Worked for the 34-Mile Canyon Line (Rapid City, Black Hills & Western), Our Author Finds Pleasure in Making Replicas of Its Rolling Stock

when I asked the eager rails to chip in the necessary funds, I found that very few of them had any money. I should have guessed it! Every man had a burning desire to work, but we needed more than that, and so the noble idea fell through.

On several other occasions I tried similar ventures. One of them was an attempt to save the two-foot-gage Sandy River Line in Maine by railfans' subscriptions. In each case the enthusiasm was not backed by financial resources. I lost several hundred dollars of my own money through these efforts, but I conscientiously refunded every dollar which other contributors had sent.

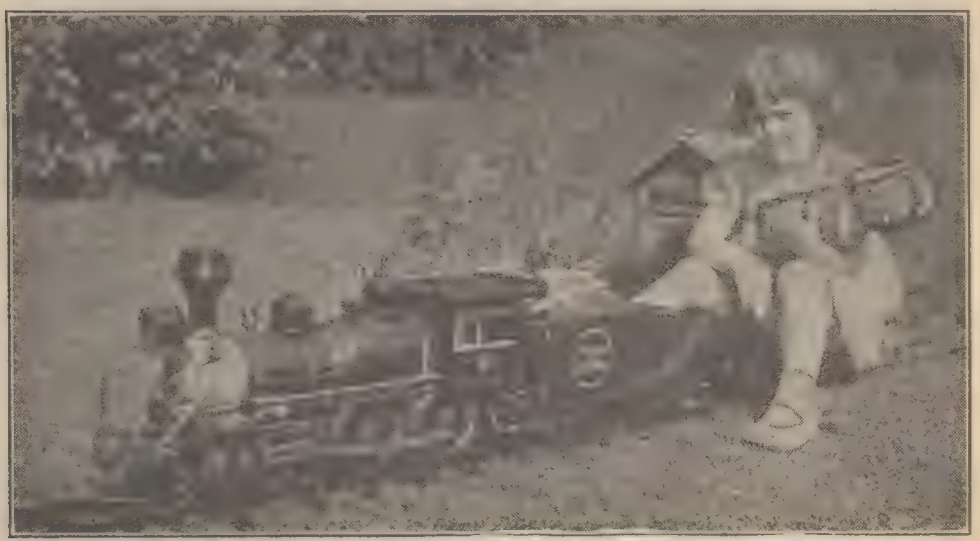
By now the depression was at its height and for the first time in my life I had the bitter experience of not being able to slide right into another railroad job. In fact, it was only through good luck that I met an old railroad friend from the Nickel Plate, and he got me a position with a roofing concern where he was employed. Although I may never again work on the high iron again, I still railroad at home through my engine picture collection and model building.

Since the age of ten I have been building train models. By the time I had constructed eighteen wooden engines, I decided to make my masterpiece—number 9, an 4-4-0 diamond stack, built entirely of metal and equipped with a powerful home-made motor. After that I built replicas of the CB&Q 2814, 2815 and 1728; also a Shay geared locomotive, a caboose, a combination car patterned after the Sandy River & Rangely Lakes coach No. 14, an express car of the type that was used back in the '80s and a parlor observation car.

More than once my models have won acclaim in public exhibition. The biggest honor they ever received from the general public was when I placed some of them on exhibit in the lobby of a local movie house during the showing of *Union Pacific*. This display attracted so much attention it received a half page on the feature section of the Sunday newspaper. The greatest individual honor paid to any of my models was accorded parlor car No. 17—by a mouse. Once we returned from a weekend trip to find a mouse's nest in the smoking compartment of the car.

Back in 1905 when I first started collecting photographs the only other railcamerist I knew of was M. G. Boutell of Washington, D. C. But twenty-two years later, when the International Engine Picture Club was founded, I became a charter member and learned there were thousands of other people with the same hobby. Since then I have exchanged photos with collectors all over the United States and Canada.

The walls of the two back rooms of my home at 16 High Street, Franklin, Ohio, designated as my workshop by a special pact with my Millie, are now covered with choice shots. The shop is illuminated by the last lantern I used on the RT&N, now equipped with an electric bulb; and around the rooms I have on display switch keys and annual passes which recall the glorious days when I was a short-line boomer.



Lad Arend's Model of Colorado & Southern Number 9 Was Photographed with the Six-Year-Old Child of a Neighbor to Show Its Comparative Size

*Two Photos by E. J. Tanner, F.P.G., 17297 W. Outer Drive, Dearborn, Mich.*

This Midget City at Dearborn, Mich., Is Owned and Operated by Bill and Heine Dorworth, Who Say the Construction Took Them at Least 1500 Hours of Leisure Time over a Period of One Year and Cost About $3000 for Materials. The Entire Layout Covers 550 Square Feet. The Railroad Is 198 Feet Long. It Has a Third Rail Soldered Together in Five Elastic Operating Circuits; It also Has 3000 Ties, 6000 Metal Clips and 50 Telephone Poles. Nearly 1200 Feet of Underground Wiring Is Used to Light the Buildings and Operate the Railroad. Scale Is Three-Quarters of an Inch to the Foot. There Are 78 Tiny Figures of Human Beings and Animals

Midget City's Passenger Train Traveled Fully 30,000 Scale Miles Last Year, Taking Three Minutes to Cover the 198 Feet of O Gage Track. It is a Model of a Michigan Central Express. Engine and Tender Together Weigh 17½ Pounds

# Model Railroading

WHAT happened to *Railroads at Work,* the world's largest model railroad system that ran for two successful seasons at the New York World's Fair? The question has often been asked since the Fair closed last October 31st. As we were about to go to press, this famous system, complete, was being operated in the hobby shop of Macy's Department Store, New York City.

If you'd like to put a few cars from this historic little railroad into service on your own pike, you can buy them "at a fraction of their original cost," as Macy's newspaper advertisements read. In fact, you might be able to pick up almost anything your pike will need for a long time, from miscellaneous buildings at 29c apiece up to an O gage replica of the streamlined Reading *Crusader* with tender and four sleek cars for $374. The layout includes dozens of O gage locomotives, about 200 pieces of rolling stock, a glorious array of signaling devices, a giant turntable, and a funicular railway complete with motors, several OO gage locos and coaches, 34 boats, more than 100 buildings, and many kinds of electrical operating accessories.

You may still have time to see the entire layout in operation, as nothing will be delivered until the end of the exhibition period. If you can't go in person, Macy's will send you a catalog gratis, upon request. The address is Herald Square, New York City.

* * *

THERE'S more than one Daniel Willard who runs a railroad. According to *B&O Magazine,* Daniel Willard 3rd, grandson of the company's president, gets quite a thrill out of building and operating a model layout along with two of his school chums. The boys first built a realistic mountain-chain background out of papier-mache with a chicken wire background, then laid the tracks and equipped the line with several crack passenger trains—including, of course the *Royal Blue*—and a traveling crane similar to one Danny had seen at the B&O's new open pier at Locust Point when Grandpa took him there,

also an automatic coal tipple, and other realistic accessories. The layout is operated by a master switchboard.

* * *

A MODEL exhibition the likes of which the Capitol City has not seen for many years was staged as a feature of the Washington Hobby Show by the Metropolitan Society of Model Engineers and the Ass'n. of Model RR. Manufacturers, March 4th to 9th. Three operating layouts —two O gage and one HO—plus exhibits by many model railroad manufacturers and most of the big-time pikes serving Washington, made the occasion memorable. In conjunction with the show, members of the MSME sponsored a 3½-hour trip by special train through the rail facilities of the Nation's capitol. For information on the MSME, write to its headquarters at 356 Union Station, Washington.

* * *

NATIONAL MODEL RR. ASS'N., an organization which issues an annual yearbook and various bulletins, is sponsored by A. C. Kalmbach, 1568 W. Pearce St., Milwaukee, Wis. Membership costs 50c per year. Further information and an application blank may be obtained by writing to Mr. Kalmbach, who is also publisher of *The Model Railroader* and *Trains*.

* * *

DIRIGO MODEL RR. CLUB (Donald L. Rockwood, sec., 6 Lawrence St., Waterville, Maine) is proud that two Maine papers have given them a lot of publicity recently. The 15 live-wire members deserve recognition. In the past few weeks they have completed many new buildings and scenic effects, as well as a new control board for their layout. All visitors are welcome at "open house" every Monday evening at 60 Western Ave., Waterville.

RHODE ISLAND BROTHERHOOD OF MODEL RAILROADERS, Providence, R. I., is one of the oldest model groups in New England, having been organized six years this month. A gala celebration is planned in connection with the anniversary, and you're invited (as you are to any of the club's meetings) if you will first write the secretary, Ted Speidel, 1971 Elmwood Ave.. Norwood, R. I.

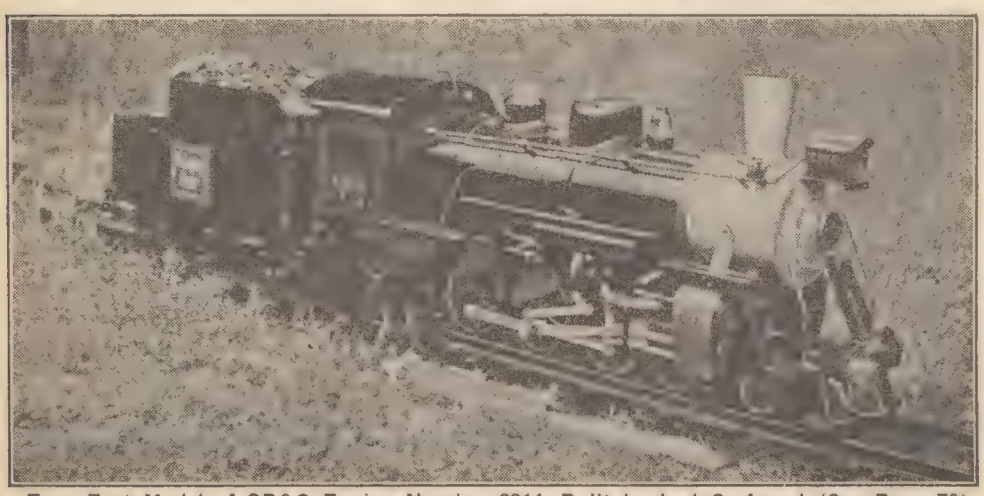
This club claims to have solved the high overhead problems by holding their meetings in member's homes. In this way there are no rent, light, gas and coal bills. Besides, the lady of the house usually obliges with a snack at the close of the meeting. Of the 18 members, 14 have layouts in their homes, in addition to which the club owns a portable 30 x 50 layout which can be used as an exhibition railroad.

* * *

THEIR clubroom in St. John's Episcopal Church was the scene of the Stamford Model Railroad Club's recent "open house" meeting, at which 65 people, members and guests, turned out to see sound movies lent by the Canadian Pacific and the D&RGW, and listened to a talk by Waldo Follett, NYNH&H signal engineer. After the formalities, the assemblage watched 25-car freight drags and shiny passenger trains whiz around the 325 feet of track down in the church basement. We know that most churches sponsor scout troops and other recreational groups, but this is the first railroad club we have heard of which holds meetings in a religious edifice.

* * *

IT'S TIME that Owosso, Mich., had a model railroad club, according to Curtis Lischefski, 641 N. Shiawassee, Owosso. He'd appreciate hearing from all model fans in the vicinity either by mail or telephone. (Phone 1682 Blue).



Four-Foot Model of CB&Q Engine Number 2814, Built by Lad G. Arend (See Page 79)

# Model Trading Post

## Wanted

TINPLATE cars series 2600, left and right switches 022, coal elevator, pass. cars series 607 and obs. 608. I'll pay cash.—Henry Reif, Jr., 2417 Birmingham Ave., Dallas, Texas.

* * *

LIONEL pass. cars 605 or 710, wide- and narrow-radius switches, O gage trucks (6 or 8-wheel). Buy, or trade other eqpmt. Have new Lionel elec. r.c. train, sale or trade.—Bruce Hatcher, 1824 Winchester Ave., Ashland, Ky.

* * *

TRACK, O gage. In exchange I offer *Railroad Magazine* issues Jan., Feb., June, July, Sep.-Dec. '40; Feb. '39; Feb.-April '38; Jan. and Feb. '41.—Edward Stowe, Beach House, Manchester, N. H.

* * *

LIONEL O gage elec. type loco 252E, 253E or 254E, good cond. Also pair 721 switches. Will pay cash.—H. S. Mace, Ferrisburg, Vt.

* * *

AF FRT. cars, good or fair cond. Either 6½-in. litho or 9½-in. with first (1938) auto. coupler. Will pay cash.—James Robison, 467 Pacific St., Brooklyn, N. Y.

* * *

LOCO, 4-4-0 or 2-6-0, for 6 volts DC or 20 volts AC. Also several pairs of 4-wheel trucks. Write first.—Michael Spellen, 36 Kings Ave., Greenford, Middlesex, England.

* * *

HO HUDSON type loco AF. I offer in trade Lionel O gage elec. type loco 252, pass. cars 607 and 608, 8 sections curved, 6 straight track; also 10 str. and 12 curved Marx track, and a crossover.—Chas. Suit, 422 Liberty Ave., Jersey City, N. J.

* * *

LIONEL elec. steam type engines and cars, auto. couplers. I'll trade 43 *Railroad Magazine* issues ('37-'41) and *B.L.E. Mag.* for '40.—Geo. Chalupa, 630 Nesmith Ave., Sioux Falls, S. D.

* * *

HO LOCO: switcher, Hudson or Pacific. I offer cash plus *Railroad Magazine* issues from '30 to '41.—Norman Garrison, Box 172, Maple Ave., Cedarville, N. J.

* * *

HO LOCO. I offer all issues *Miniature Railroading* to date; 6 *Mod. Bldrs.*, 10 *Mod. Craft.*, 15 *Pop. Science*, all good cond, and $8 cash.—Stanley Bloom, 782 Pelham Pkwy. So., N. Y. City.

* * *

LIONEL semi-scale loco or Pennsy K4, O gage. I offer 5 prs. 027 auto. switches, 32 pcs. w.v. curve, 5-stall roundhouse, trestle bridge.—Robt. Mauger, 2407 Perkiomen Ave., Reading, Pa.

* * *

CAST-IRON wind-up train, with or without cars. Buy or swap. Have much O gage tinplate to pick from.—Melvin Denny, 301 W. Beard Ave., Syracuse, N. Y.

* * *

BING-IVES 8-wheel frts., AF 9½-in. lith. frts., Ives accessories, Hornby eqpmt., and Bing, Ives, Maerklin, early AF and Lionel catalogs.—A. McDuffie, 640 Turk St., San Francisco.

* * *

CASH or swap for obsolete tinplate cars, locos, trolleys, catalogs—any age, cond or nationality.—Glen Harrison, M.D., care of Barnes Hospital, 600 S. Kings Highway, St. Louis, Mo.

* * *

LIONEL scale loco 700EW or switcher 902B. Have $100 worth imported animals, all scales, good for model circuses. What have you in scale eqpmt.?—Bert Backstein, 1334 N. Railroad Ave., Decatur, Ill.

* * *

ALL tinplate catalogs before '36. Many O gage locos. Write for list or send yours. I have HO locos, scale eqpmt., European HO rail power packs (DC) to sell or trade for O gage.—Francis Karn, 2713 S. 13th St., St. Louis, Mo.

* * *

TRIX TWIN train and eqpmt. Will pay cash.—C. Lopinto, 98 Heathcote Rd., Elmont, N. Y.

* * *

WORM and gear sets wanted, or info. on where to get them, for drive on HO power truck. Also any kind HO loco, good cond. Will swap photos and specifications of Whitcomb Diesel-elecs. for HO eqpmt.—J. V. Lowe, 823 N. 2nd St., Rochelle, Ill.

* * *

O GAGE scale or tinplate eqpmt. wanted. I offer st.-gage switcher, str. and curved track, crossover, Ives 184 buffet car, Lionel 33 loco, 29 pass. car, monorail, el train and track.—L. A. Cook, Rte. 4, Everett, Wash.

* * *

MODEL eqpmt., large size, wanted in exchange for old mags. (I have hundreds, some 50 yrs. old) and illustrated Chicago World's Fair souvenir song; I have 1000 copies. Or will sell song 10c ea. postpaid.—W. E. Shelton, 73 W. Cuyahoga Falls Ave., Akron, O.

* * *

O GAGE Lionel or AF 2-6-2 loco and frt. cars wanted. I offer 3x3½-in. base and stroke upright steam engine, good cond., adjustable bearings, which I value at $25.—H. C. Atkins, Grenada, Calif.

**"Oh, That's Okay; I've Got a Contract to Cut Ties for a Model Layout"**

## For Sale or Exchange

COMPLETE pike, 9x15 ft., 2-rail Lionel, tinplate track, overhead catenary, many switches, mounted on wood base with ties, ballast; also streamlined *Flying Yankee* with operating pantograph. Sell for best offer. Send 5c for photos and list.—Carl Kent, 305 E. 28th St., N. Y. City.

* * *

FREE: to everyone enclosing 1½c stamp, I'll send pass and photos of abandoned Sante Fe Western O gage pike.—Richard H. Brown, 3600 Griffith Park Blvd., Los Angeles, Calif.

* * *

Three OO 2-rail reefers, 5 boxcars, diff. roads, factory built, perf. cond., $3 ea. Scalecraft permag. D.C. 10-wheeler, control box, auto. circuit breaker: $15.—Chas. Davis, 6527 S. Aberdeen, Chicago.

* * *

LIONEL 027 train set: 1666E steam type die-cast loco, 3 elec. coupled pass. cars, one R.C.S., pr. r.c. switches, 23 str. and 10 curved tracks, and trans., $18. *Railroad Magazine*, 50 issues 1932-'41, $5 plus postage. 8 *Mod. Craft.*, $1.—Valerien Roy, 41 River St., Lewiston, Maine.

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*RAILROAD MAGAZINE*, Nov. '32-Feb. '41; *Mod. Craft.*, Dec. '36-May '40; *Mod. Railroader*, Feb. '38-Dec.

**"You See, Mister, We Were Just Digging a Tunnel for a Model Railroad"**

'40; Eastman No. 2 camera 1898 model, and *Moviematic* 16 mm. 50 ft. camera. Want HO motive power, parts, or cash.—W. W. McCammond, 50-67 41st St., Long Island City, N. Y.

* * *

LIONEL 027, 1668E loco, tender, 3 cars, 26 pcs. track, stationery whistle 48w, pr. r.c. switches 1121, 2-ft. trestle 1031, 40-watt trans., 50-w. trans., ¼ h.p. gas engine; all excel. cond. Make offer in O gage eqpmt.—Frank Craven, R.F.D. 1, Alliance, O.

* * *

WILL trade rr. watch labeled Webb C. Ball Co., Cleveland, No. 67, for std.-gage loco or drivers.—O. H. Benson, 58 Rutland Sq., Brockton, Mass.

* * *

WILL trade part of following: engine with tender 259E, Pullman 607, obs. car 608, tender 265T, pr. of 011 switches and streamlined cars for pr. of 022 switches, O gage track and log-loader.—Harold Williams, 4045 Garfield St., Lincoln, Neb.

* * *

LARGE O gage tinplate system, locos, all types track, cars, manual, r.c. switches, incl. Ives antiques, rare foreign items, and scale cars with tinplate trucks, fine cond. Cash only.—G. E. Condey, 5329 Skillman Ave., Woodside, N. Y.

* * *

FIVE O gage engine motor frames with gears and wheels. Make offer in HO eqpmt.—J. L. Mountain, 4523 N. Kildare Ave., Chicago.

**LISTINGS in the Model Trading Post, which are free, are limited to 40 words each. Items for July issue, out June 1st, should be sent to us early in April, the earlier the better, accompanied by the latest Reader's Choice coupon (clipped from page 143 or home-made).**

**Enclose a stamped envelope or use a 2c reply postal card when writing to anyone listed here.**

100 MAGS: *Railroad Magazine, Ry. Age, Mod. Railroader's Digest, Miniature Rail., Nat. Geog.,* and 150 books. Best offer takes 'em. I want O gage tinplate or sports goods.—L. J. Reynolds, 2082 W. 18th St., Cleveland, O.

* * *

LIONEL loco 226E, preferably fixed to run on scale track; also scale pass. cars. I offer AF frts., Lionel 2800 series frts. and Lionel solid rail switches 731. Also have 700EO Lionel loco, $38; 2763EW for $21.—Geo. Williams, 116 E King, Owosso, Mich.

* * *

AF TRAIN sets, O gage, much extra eqpmt., track, etc. Best offer takes it. Send stamp for list.—Ray Jensen, 126 E. 114th Pl., Chicago.

* * *

6 LAMP-POSTS, Lionel loco. 154, AF curved track. Sell, or trade for 8-wh. 6½-in. frt. cars.—John Bell, 1726 Logan St., Harrisburg, Pa.

* * *

AF SWITCHER 431, O gage; dump car 409, flood-light car 415, log car 406, caboose 411, trans. 7, uncoup. track 675, sixteen curved track 680, 24 secs. st. track 681, all for $21.—G. Alling, 22 Carlson St., New Britain, Conn.

* * *

*RAILROAD MAGAZINE* issues 1932 to date complete; also std.-gage elec. eqpmt. Sell or trade for O gage heavy eqpmt. or first World War relics.—Lt. R. F. Harding, 40 Beach St., Marblehead, Mass.

* * *

LIONEL and Marx trans., Lionel eng. 258, caboose 817, boxcar 814, three hoppers 816, and power house.—Robt. Wolff, 1730 E. Maryland St., Evansville, Ind.

* * *

FEEDWATER force pump, for tender ½-in. or ¾-in. scale; also set of ½-in. scale castings for CP switcher. For sale reas.—Wilfred Jacques, 93 Elliott St., Galt, Ont., Canada.

* * *

WIDE-GAGE AF *Lone Scout* 1470, 26 secs. str. track, 16 curved, 2 crossovers, pr. new r.c. switches, train used only 10 hrs. I want cash or O gage eqpmt., Lionel pref.—E. L. McCalmont, Box 135, Gila Bend, Ariz.

* * *

MAGS: 3 *Railway Age,* 1 *Compressed Air,* 4 *Mech. Engineering,* all fair shape, 1921 vintage, $2.50 plus postage. Want 4 sets Lionel tools, 5 sets AF frt. cars, flats 3046, gon. 3016, box 3015, caboose 3017 and 6, oil cars 3018; must be 8-wheeled, 6½-in. long.—Pelletiers Model Club, Rte. 3, Box 39, Palouse, Wash.

* * *

37 ISSUES *Railroad Magazine* (Dec. '29-June '34); trade for any type 2-rail HO loco.—Robt. Holst, 7314 Ridge Ave., Chicago.

* * *

IVES and AF eqpmt., 027 tracks, Lionel 251E, 258, UP streamliner (for 072 track), 10¼-in. pass. cars 605, 606, frt. and crane cars, accessories 80, 69, 83, 440, twin-signal bridge, switches 012; AF tender 3189. Write for details.—Geo. Powers, 405 Churchill Rd., Sierra Madre, Calif.

* * *

IVES cars 65, 67, Buddy L dredge, Lionel loco 261, tender 257, pr. switches 021, portable radio, rear seat heater, and .22 repeater. I want O gage kits, scale eqpmt., loco 700E or motor trucks suitable for Diesel loco.—H. C. Bedford, 834 21st St., Rock Island, Ill.

* * *

LIONEL locos, cars, tracks, switches, trans. Also Marx cars and tracks. Send 3c stamp for illus. folder.—Melvin Frankel, 129 B. 88th St., Rockaway Beach, N. Y.

* * *

SEVEN AF frt. cars, caboose, 16 sec. curved, 4 str. track, all HO. Brand new. Sell or trade for AF loco, HO-gage.—Earl Chalfant, 770 Anahiem St., Pittsburgh, Pa.

* * *

NEW *Hiawatha* whistle tender, five 2800 series auto. coupling frt. cars, complete oval, wide-rad. tubular track $27, good as new. Also, *Hiaw.* pass. set, outside 3rd rail, $22; Lionel Hudson 700Ew kit, $37.50.—A. L. Mann, 4719 Rockwood Rd., Cleveland, O.

* * *

NYC HUDSON completed from latest Scalecraft kits, fine detail, gray iron added wheels, $60. Also O gage stock car, WP box, WP refrig., $3.75 ea. Miniscale tank $5. Want scale pass., bag. and express reefers.—M. L. Artino, 9711 Kennedy Ave., Cleveland, O.

LIONEL 2811 lumber car, $2; oil car 2815, $2.50; caboose 2817, $2.50. All new, with elec. couplers.—Harry Weaver, 302 Plaza Apts., Muncie, Ind.

* * *

FORTY pcs. OS str. and 30 pcs. OC curved track, 5c section. Good cond.—Hubbard Richardson, Leicester Academy, Leicester, Mass.

* * *

WILL trade UP streamliner, Lionel 072, hardly used, for 027 frt. steam type loco. or what eqpmt. have you? —Roy Middaugh, Laingsburg, Mich.

* * *

BOOK *1000 Pointers for Machinists and Engrs.*, helpful for those building steam models of before 1896. Trade for HO eqpmt. or pix size 116.—C. P. Gustke, 301. S. Court St., Crown Point, Ind.

* * *

O GAGE Amer. Mod. dining car, Scalecraft caboose, oil car, refrig. car; HO gage AF Hudson, mail car, 2 coaches, circular track. Make offer in OO or cash.—Robt. Anisansel, 101-66 115th St., Richmond Hill, N. Y.

* * *

COMPLETE O gage Lionel and AF systems, all late model with elec. couplers; also some std. gage. Low prices. List for 3c stamp. Specify which gage.—Daniel Stiteler, Jr., Box 1, Elverson, Pa.

* * *

NYC HUDSON, super-detail, with extra lead weight, 17/64 scale, $40—will pull 35 cars. Same 2-rail r.c., Walther converted, $50. Lionel Hudson, 4 scale cars and oval Lionel black solid-rail track, new, $72.50.—L. M. Blum, 807 Engineers Bldg., Cleveland, O.

* * *

LIONEL scale Hudson, O-gage, whistle, 2- and 3-rail, never used, $40. NYC Mikado H10b, O gage, 2- and 3-rail, built by Ferris, Huntington, Ind., nearly new, $80.—Howard Everhart, 319 E. Monroe, Alexandria, Va.

* * *

TWO-PEN stockyard, water tower, 2 depots, interlocking tower, 75 ft. 1/16 sq. brass 3rd rail, all O gage, $3.50. Pittman 6 v. D.C. motor, HO gage, $3. Also, cheap jig saw and circle saw. Write for info.—Calvin Schmahl, R.R. 4, Chilton, Wis.

VOLTAMP-BOUCHER Pacific loco 2500, 6-car pass. train, several frt. cars, much 2-rail 2-in. track, 8 switches, all good cond., offered in trade for good Graflex camera with size 120 film pack.—Geo. Bott, 14264 Kilbourne Ave., Detroit, Mich.

* * *

INTERURBAN motor car, O gage, with working pantograph, good details; 2 trailers, pass. set, $15. Frt. motor, working pantograph, 2 boxcars, 2 gons., caboose, scale couplers and fine details, $17.50 F.O.B.—S. Blanc, 1350 Tennyson, Denver, Colo.

* * *

HO VARNEY loco and tender, $35. Also 25 frt. and 10 pass cars. All good cond. Send stamp for itemized list, or take all for $75.—E. F. Krupp, 1801 W. 47th St., Chicago.

* * *

LIONEL UP train, almost new; also HO outfit, all or part. Low price for quick sale. Send 3c stamp for details.—E. P. Verdonck, 908 Lovers Lane, Akron, O.

* * *

LOCO 027-1661E and tender, $3.75; 027 elec. type 1651E loco, $3.50; each with 2 pass. and obs. cars. Two 027 manual left switches, $1.35; Bing 0-4-0 loco, $4.75; 75-watt trans. 25-40 cycle, $1.65.—James L. Mater, 334 Hamilton St., Harrisburg, Pa.

* * *

WILL swap this st.-gage Lionel eqpmt. for O gage: loco 384E, Pullman 309, obs. car 312, all good cond.—Wm. A. Bentley, 61 Columbia Ave., Batavia, N. Y.

* * *

LIONEL loco 2226EW converted to scale and 2-rail, also B flat trumpet. Trade both for Lionel Hudson or similar engine, or either one for modified Hudson.—C. M. Bailey, Cashier, Southern Pacific Co., Woodland, Calif.

* * *

500 SECS. curved and str. O gage track, 3 elec. streamlined trains, 10 key-wind locos, many cars, 6 wooden-head ventriloquist dummies Chas. McCarthy (I'll teach you how to make 'em talk, in one lesson), also complete file *Railroad Magazine* Dec. '29 to date. Make offers on 2c reply postcard.—Doc Cary, Rte. 9, Box 668, Houston, Texas.

**With the Aid of Model Equipment, Hundreds of British Women Are Being Prepared for Railway Jobs at London Transport Stations and Lambeth Training College**

# Tower Man

By HARRY BEDWELL

Whose Last Job as Boomer Operator Was on the Pacific Electric

## *Eddie Sand, Still on the Pacific Electric, Finds the Trainmaster a Bit of a Problem*

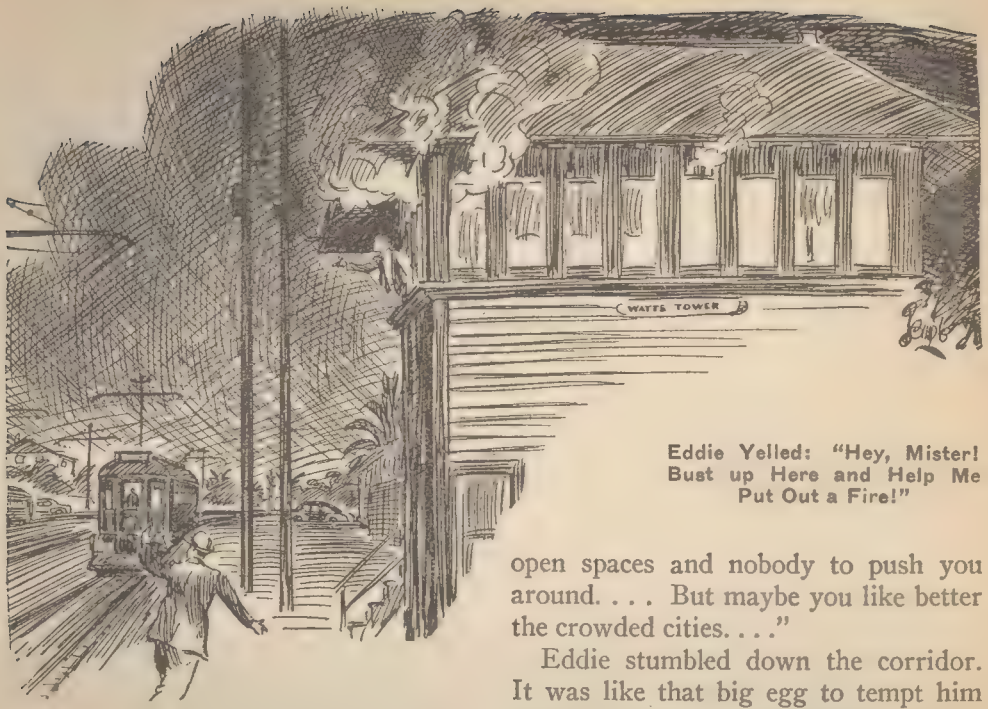
EDDIE SAND pushed morosely into the huge waiting-room of the Pacific Electric at Los Angeles, and in his abstraction was nearly trampled underfoot by swarming passengers. A continuous rumble of juice trains muttered through the cavernous space. He was wondering uneasily why that Santa Fe hotshot's distant whistle the night before had made his sleep fretful. Maybe the high iron was calling him back.

Desperately he smothered the thought. He knew that Bernice, with the spun-gold hair, was still enamored of Southern California, and Eddie told himself again and again he shouldn't drag her away from it so soon. Of course, the wife of a boomer brass-pounder gets used to moving about. But they hadn't been married very long, and Eddie was determined to give her a break. Besides, he wanted to be perfectly sure he'd had enough of juice railroading before he pulled the pin.

Blundering into an outward crush of the Catalina specials, he disengaged himself from the mad tourists, slightly battered, and looked around to see who was calling his name.

One of the dispatchers said: "Hey, Eddie, there's a letter for you kicking around up in the office."

Eddie veered to the stairway at the rear of the loading platform. He pushed into the dispatcher's room and found the letter on top of a switchboard. The sight of it made him wince. It was from Walley Sterling.




Eddie Yelled: "Hey, Mister! Bust up Here and Help Me Put Out a Fire!"

His mind fled back through the years of their wanderings—kid telegraph operators growing into restless young wanderers, journeying far, but always coming to a rendezvous at intermittent crossings of the careless road. Lately, Walley had lured Eddie and Bernice here to the Pacific Electric, and then had shamelessly deserted them when the resistless call of the iron highway had hit him and sent him to British Columbia on a telegraph job for a logging concern, slightly resentful that Eddie wouldn't go along.

And now the lines of Walley's letter streamed before his eyes like flashing tape:

"All this pike does is haul its own logs. . . . Two saddleback engines, and the track is laid on top of the ground so they can move it about. . . . There's not enough work to interfere with your fishing, of which there is unlimited amounts. . . . There's plenty of wide-open spaces and nobody to push you around. . . . But maybe you like better the crowded cities. . . ."

Eddie stumbled down the corridor. It was like that big egg to tempt him with far places at the moment his resistance was lowest. He could hear the subdued chatter of telegraph instruments in a lonely night office, high in the mountains, and the distant thunder of a Mallet on the hill. The boomer fever worked into his blood.

The clerk in the superintendent's office motioned him into the Old Man's sanctum. Eddie entered with his usual quiet decorum and stood his slim length unobtrusively before the official's desk. He'd just finished a relief job, and the Old Man had called him in. A guilty hope came to him that the super wouldn't have another job, which would be excuse enough to move himself and wife northward on the eternal boomer trail.

O. J. Donaldson didn't look up. The brass hat was studying by turns an accident report turned in by two of his trainmen, and a glaringly headlined story in that morning's paper. He was checking the statements of motorman

and conductor against the narrative of the reporter, and apparently finding them both inflammable. His rugged face showed an ominous scarlet over the top of his lengthened brow.

*The Morning Sentinel* was crusading against grade crossing accidents, especially on the Pee Ee. It placed the blame for every such mishap on the interurban company, whose double-track lines covered the territory adjacent to Los Angeles with a steel web.

Despite the warning wigwag signals and bells at all grade crossings, and the deftness with which motormen handled the air in order to avoid collision with the automobiles, motorists persisted in driving onto these intersections in the face of oncoming electric cars; then fainting, or otherwise losing their senses, and being struck, with varied resultant damage to automobile and contents. The big steel interurban cars were well nigh indestructable, which wasn't true of the gas buggies.

The *Sentinel's* vindictive attitude could be traced to its aging publisher's granddaughter, a vivacious miss. In a spirit of fun she had tried, in her shiny new machine, to beat a Pacific Electric train through a crossing. It turned out a dead heat. The motorman had been alert and cool, or the outcome of the collision might have been more disastrous. As it was, her automobile had been wrapped around the stubby front end of the electric car in such a manner that it couldn't thereafter have been driven in any other direction than a continuous circle.

The young woman was unhurt but highly incensed. In this state of mind she had no difficulty in convincing her doting grandparent that the interurban was entirely to blame, and the old gentleman likewise became infuriated. He'd have nobody, not even a railroad, treating his family with disrespect. His powerful newspaper began a sustained attack on the interurban. Every time one of its cars and an automobile locked fenders, the *Sentinel* screamed of the "Red Reaper." All operating officials were hard to get along with during that period.

DONALDSON began to mutter darkly, and Eddie paid cautious heed. "We slow our trains down to twenty miles an hour at the road crossings," the official indicated, "which depresses our running time a lot. But when we're not smacking an automobile, they are colliding with us from the side."

Eddie continued his mouselike silence. At length Mr. Donaldson gave him the half of a bleak eye, then returned it to his cross-considerations. The crimson tide ebbed from his broad forehead. He addressed Eddie directly without looking up.

"If so many other things hadn't happened," he said, "*they* might have considered your actions in keeping the service going at Whittier during the recent flood as commendable."

It wasn't an explosive outbreak. The official tone was more like a subsiding earthquake.

"But with all the expense of repairing the lines after the high water got through with us," Donaldson went on, "and now this 'Red Reaper' business in the papers, you can't open your mouth around here without getting your teeth knocked out. Fact is, there has been at least one protest sent upstairs on the cost incurred in your operations. But I didn't send it."

Eddie was startled. He thought he'd done very well in handling that flood situation, and Donaldson had said at the time that he thought so, too.

The lines of Walley's letter still

flickered before his eyes. Another guilty hope dawned in back of his mind. Okay. If the brass hats upstairs didn't like the way he managed an emergency, they could go jump in the deep blue sea. It'd be a great excuse. He'd shove off north.

The door opened and interrupted his wild wishing. Trainmaster Burton came heavily into the room, as if he carried some burden which wasn't apparent.

Donaldson gave his trainmaster a brief and bitter stare. "As I said," O. J. remarked, "some have been critical of your handling of the flood situation, Eddie. It was reported that you were extravagant. But I don't think you were."

"Certainly he was," Burton deliberated. "Mr. Sand exceeded his authority as relief agent by instituting that shuttle service without permission when it was certain that the revenue thereby obtained wouldn't be commensurate."

Eddie blinked. If Burton so much as passed judgment on the weather it would be heavily judicial. The trainmaster pushed his hard hat to the back of his head with a clam-shovel hand. He mangled a toothpick between broad teeth.

"Sure," said Eddie. "All the service I instigated did was to keep the commuters going and coming and the mail and express proceeding to their proper destinations. Which, as I understand it, is the main function of this juice line, and from which it derives its revenue."

But the irony of that was too fragile. It shattered without marking the trainmaster's placid brow. He pondered Eddie's statements resolutely.

Burton had been transferred to the Pee Ee from the parent company's steam lines, but nobody yet had any idea why. There were two wild guesses current in the lower brackets of the personel: One, that the parent line had somehow been stuck with him and had shoved him on to its subsidiary on the theory that he might do less harm in a smaller field. The other conjecture was that Burton had been sent to furtively study men and operations, and to report his findings. No one had been able to decide if he were really as dense as he seemed.

Mr. Donaldson was his superior here, but Burton seemed to think that because he had come from the parent line he could ignore that authority. If Eddie had the situation correctly tagged, O. J. was in a spot where he stood in danger of having his throat cut, so to speak, without means of defense or retaliation.

Off hand, the boomer regarded Burton as sincere enough, but benighted. A very, very serious-minded official. And ignorance and zeal can create a lot of hell around a railroad—or anywhere else. Men like that eventually hung themselves. But often they took a long while doing it. Meantime, they did plenty of damage about the shop.

BURTON had been chewing thoughtfully on his second toothpick while he pondered Eddie's brisk remarks. At last he ventured:

"But we have got to make money in any operation. Your shuttle service cost more than the revenue we got out of it."

The trouble really was, Eddie believed, that he hadn't consulted Burton before he projected his emergency operations. The trainmaster liked to go into deep conference before he acted. But the telephone lines had been broken down by the storm, and the situation was so acute it wouldn't permit of delay or consultation. You had to act at once, or let it ride.

Donaldson said mildly: "I haven't seen any figures from the auditor's of-

fice to show we went into the red."

"I don't have to see them to know they are bad," Burton replied. "I can figure operating costs without an auditor."

"Besides," persisted the super, "we kept the business from going to competitors."

Burton spoke with rising impatience: "You give the public more than it's entitled to. That's expensive." He frowned at the boomer. "Well, Eddie, I don't suppose I'll be seeing you around. Good luck!"

He marched off with deliberate tread of heavy feet. Eddie stiffened. So the T. M. was trying to run him out! That was something else again. He said harshly:

"I don't remember ever being fired in just that way before."

"When there's any firing to be done in this office," Mr. Donaldson snapped, "I'll do it." He glanced at a memo pad. "You being a railroad telegraph operator, I suppose you have worked an interlocking tower?" he asked.

Eddie said he'd worked all kinds and sizes of towers, from a manual of four switches and a semaphore, to a ninety-lever plant.

"The electrical superintendent," Donadlson went on, "wants a tower operator at once. Today, at Watts. Suppose you go up and see him. I've told him about you."

Eddie ran lean, freckled fingers dubiously through his hair. Friction sparks danced from the carroty sheen. This wasn't working out to his own plans.

"Doesn't Mr. Burton ever visit the towers?"

"Certainly. He makes frequent tests on the trainmen from them. And the operator on duty has to co-operate."

Eddie said plaintively: "Well, then look. He's sure to find me working at the Watts tower, and when he does he'll jack up my job, and maybe make it tough on you."

But Eddie knew at once that was the wrong remark. The Old Man's eyes glinted.

"Which comes under the head of my affair," O. J. growled. Then came a faint twinkle. "These things come and go," he remarked. "Maybe you're not always as ingenious as when you kept the traffic moving with two bridges out. But your old pal Walley always said you were."

Eddie blinked. The stubborn mutter of interurban trains came up from the high ramp below. The imperative clang of gongs made sharp punctuation marks in the ceaseless undertone of rolling steel wheels.

The Old Man was trying to say something without using the exact words. Sitting here, always under the guns of the brass hats upstairs, the superintendent had certainly developed cunning. He didn't intend having his throat cut. And somehow he was asking the boomer for help. Eddie's resentment against the trainmaster burned. Burton should have his ears knocked down.

The lines of Walley's letter faded. The careless road seemed far away.

"I can't always pull something out of the hat when needed," he said modestly.

"No, but you can always try."

The top of O. J.'s head glowed as he returned to the cross-examination of the newspaper narrative and his trainmen's report. "And you can let it be known among the boys down there at Watts," he took up his earthquake tone, "that if they are involved in any more crossing accidents, they had as well bring the company jewelry with them, ready to turn in, when they come to see me."

WATTS tower stuck up like a sore thumb from the business district, a block from the passenger station on the main street. Eddie considered the layout from the high, glassed-in upper story of the slim structure. There was a complicated web of tracks and sidings over which you had to maneuver the swift flow of electric trains with a bank of levers protruding like pistol butts in rows from the interlocking machine. Four tracks came down from Los Angeles, the inside two carrying the fast main line traffic. The two outer lines were for the locals and the freights. These ended here in a car barn beyond the tower, while the double-track main line continued southward to branch and fan out to San Pedro, to Long Beach and to Newport. A double-track swerved sharply east to Santa Ana, while the Redondo Line turned west beyond the barn.

On all these lines, from all directions, the trains poured through the plant: fast interurbans with their loads of commuters and tourists, the slower locals and plodding freights with their huge electric locomotives droning sullenly at their drags.

Dave Martin, the first-trick operator, paced the bank of levers thoughtfully, pulling them out in series and then, as the train cleared, pushing them back to normal. Lights glowed and died in the numbered and frosted glass of the approach indicators, and enunciators clucked harshly. Whistles called from far away as trains rolled down upon the distant signals on their high bridges. Gongs banged near at hand as motormen warned the heavy motor traffic at the highway crossing a block away.

Martin didn't glance at the busy tracks while he piloted the trains through the busy labyrinth in their proper channels. He got the picture from the glowing indicators and the guttural demands of the enunciators. He threw the switches and set the signals as if by telepathy. He was amiable and deliberate, a good head.

"How many trains a day through this plant?" Eddie inquired casually.

"About five hundred and fifty every twenty-four hours," Martin said.

"That's hot traffic," Eddie decided. He asked: "How come I get the second trick when I'm new man? Doesn't the third-trick man want to be set up?"

Martin swung a twenty-car freight train from the outside track to the main line and headed it for the port. Then came the reply:

"It interferes with his fishing."

The first-trick op smiled placidly as he read Eddie's ironic stare. "Fishing takes some people bad when they get started," he nodded. "Don't ever begin, or you're liable to get stuck."

Tim McQuiston, the maintainer, climbed the stairs and thrust his rosy face in at the doorway.

Eddie said: "First you'd better show me the layout. I'd like to know the location of all those switches and signals before I begin to operate them. I might want to know about them in a hurry some time."

They went out into the sunlight among the rolling trains and plodded through the plant from the farthest distant signals away out of sight of the tower on the curve of the Santa Ana and Redondo lines, through a check of all switches and their motors, and the batteries set up in the lower floor of the tower which generated the DC juice that actuated signals and switches, and over the AC lines which furnished the energy for lights and the rail circuits.

McQuiston threw back the lid of a switchbox, exposing the mechanism. "There's a wrench in the tower you can

use to roll the switches when the power's off," he said. "But I just use my hands."

The maintainer lifted a brush from the exposed motor, cutting it out. He rolled the big gear wheel under the heel of his hand, and the switch-points moved over. Then he dropped the brush into place. Instantly the points slid back under control of the levers in the tower.

Two spikes rested in a cup inside the switchbox, and the maintainer fitted one into a hole in the tie. "That's to hold the switch-points in place when the juice is out," he explained.

Tim kept the plant in fine shape and was proud to show it. Eddie had the picture complete by the time they returned to the tower.

BY NOW, Eddie had the feel of this juice line. At first, after years on the high iron, the operations had sounded slightly tinny. The whine of the motors hadn't seemed as substantial as the blast of the stacks. The air whistles of these electric trains had a hollow, mocking sound that wasn't as authentic as the imperative howl of the storming hotshots. It was irritating to watch the trolley come off at the cross over and the pole bounce high and clash with the guy wires, and the big cars stop and lie helpless till they were again connected with the thin strand of trolley feed above, which gave them life. But there was authoritative power in the cry of the current. And those long red trains could ramble.

Close-strung, they rolled down the main from Los Angeles, single cars and multiple trains, wheeling through to the beaches and the port. Redondo and Santa Ana trains swung right and left across the flow of traffic. Cataline specials added themselves to the unending stream, morning and evening. And back from all these places the trains brought their perpetual loads of humanity going places.

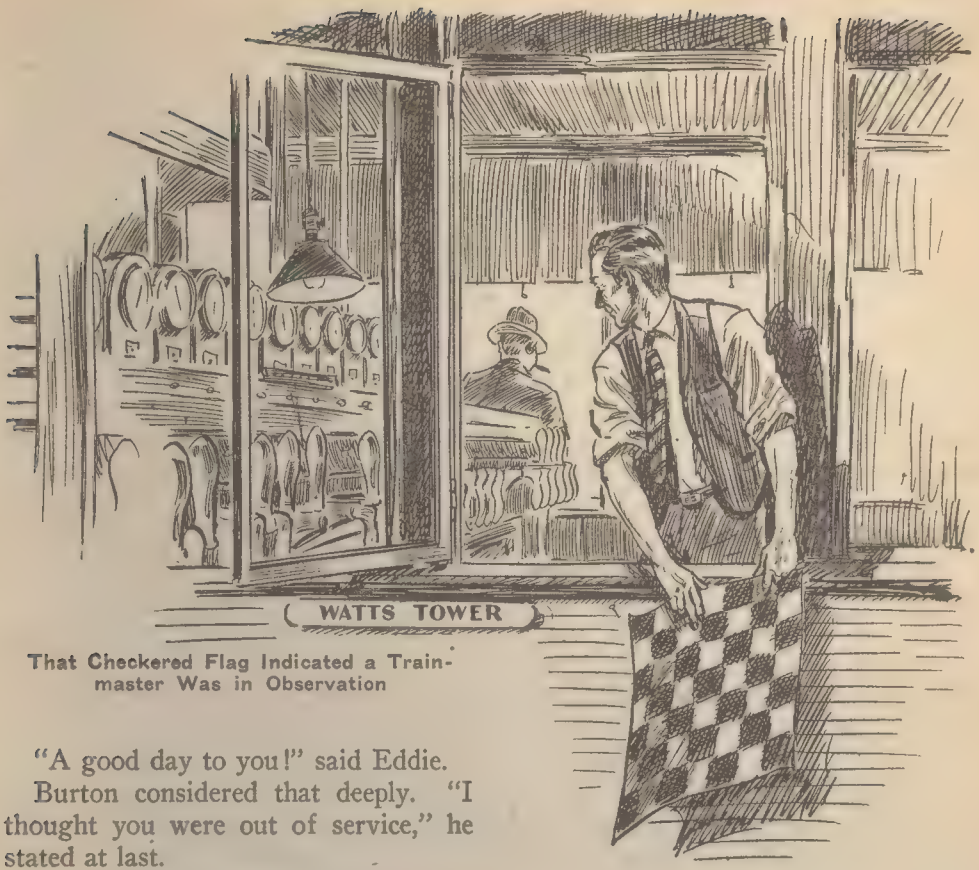
Inbound to Los Angeles, the locals cut across the main line to the outside track. The outbounds turned into the barn around a corner of the tower on their twenty-minute schedules.

Freight trains, twenty loads to each electric locomotive, rumbled by with cargoes of ships at San Pedro. Strings of empty tank cars cut over to the Redondo, bound for the refinery at El Segundo, and returned full of oil. Mixed trains, mostly empty refrigerators, turned toward Santa Ana in the early morning and came back in the evening with citrus fruits bound for steam line connections and the eastern markets.

It was the job of the operators in the high tower to move all this traffic through the plant in its proper channel without hitch or delay. But sometimes even the experienced and vigilant slipped, and put them on the wrong track. The second-trick man, whom Eddie had relieved, in answering the signals of a train out of sight on the Redondo Line, had headed it in on the main instead of the local. As a reminder, his associates had hung a placard on the tower telephone, which read: "Put the Torrance shop train on local track hereafter—or else!"

Musing on these things, Eddie discovered that this electric railway had agreeable qualities. The sound of the steam hotshots had grown dim in his consciousness as he absorbed the hum and clatter of juice-line traffic.

It was in a lull of afternoon just after he had come on duty at 2.30, before the evening peak began, that his brooding was interrupted by heavy steps on the outside stairs. Trainmaster Burton heaved himself through the doorway.




**That Checkered Flag Indicated a Trainmaster Was in Observation**

"A good day to you!" said Eddie.

Burton considered that deeply. "I thought you were out of service," he stated at last.

"No," Eddie answered politely. "No, I'm still on the pay roll."

"I guess I didn't follow that through, as I should," Burton decided, and invaded the room. "I'll have to go back and find out what happened." He took out his notebook, unhooked his watch, and laid them both on the interlocking machine. "I'm down here to make some tests on the trainmen," he added.

"I'll be happy to help you the best way I know how," Eddie offered cheerfully.

"You bet you will!" Burton flung back, and squinted north along the four tracks.

Eddie took a drink of water at the cooler. He moved about the room. He opened two more windows.

"A little warm this afternoon," he commented. "Did you notice how the section gang has cleaned up around the barn? I think the foreman said you turned that in the last time you were out here."

Burton moved to the other side of the tower and peered down at the fanwise spread of sidings leading to the barn. He grunted.

With the interlocking machine between them, Eddie rumaged swiftly among the lanterns and signal flags. Then he leaned out of the window and sniffed the air.

Burton said: "It doesn't look much different to me," and turned back. "Is that a Long Beach train whistling for the board?" he demanded. "Stop him at the home signal, and let's see how

fast the conductor falls off and how far he goes back to flag."

"Okay," Eddie agreed, and ignored the Long Beach motorman's plea for the signal as he rolled slowly down on the home board.

The car stopped at the signal bridge. The motorman sounded one long and three short blasts of his whistle, calling on his conductor to get out and go back and protect the rear of his train against following traffic.

Immediately the conductor dropped from the back step with his can of signals looped over his shoulder. He proceeded briskly to the rear.

"Very, very prompt," Eddie murmured. "I'd say he is on his toes."

Burton chewed a toothpick and grunted. "All right," he said. "Let him through."

Eddie Sand dropped the board, and the motorman whistled in his flag.

FOR two hours thereafter, Burton had Eddie stopping outbound trains at the home board in his effort to trap the conductors who might be sluggish to the call to get out and protect. He continued this pursuit doggedly into the first of the evening homeward rush of commuters, and traffic began to snarl, while Eddie held the board on any designated train with alacrity. But he didn't catch a cuprit. The longest time any conductor took to unload from the rear end of his train was eighteen seconds by Burton's own watch. That wasn't reprehensible.

At last the trainmaster reluctantly closed his virgin notebook and hooked up his watch to its heavy gold chain. "That doesn't seem natural at all," he grumbled. "The law of averages should have stuck at least one of all those we stopped. There's something wrong here."

He stared at Eddie darkly. Then he departed, muttering, and the tower shuddered to his tread as he descended the outside stairs.

Eddie darted to the open window and snatched a checkered flag from where he had hung it by two nails against the outside wall just below the ledge. He rolled it and concealed it among the other signal flags. It had been a piece of advertising display of an oil company which Eddie had begged from a service station. He had then passed the word quietly at all terminals on that end of the division that when shown on the side of his tower, that checkered flag indicated a trainmaster was in observation.

Eddie returned to his bank of levers and threw the switches and set the signals as he put the congested flow of trains swinging freely through the plant again.

Then the dispatcher's telephone rang his call briskly. He answered, his eye on the approach indicators.

"This is Donaldson," a muffled voice came through the transmitter. "Is Burton there?"

"Why, no," said Eddie cautiously. "He just left."

"I thought so," said O. J. There seemed some ironic satisfaction in his tone. "I'm over here at the Watts station, and I've been observing the fine co-operation you have been giving my trainmaster while he was making those tests. I thought perhaps he had gone, because you had ceased to co-operate. What would you have done if he had made some tests on inbound trains?"

Eddie glanced apprehensively at the Watts station across the four tracks. "Well," he deliberated.

"On second thought," O. J. interrupted, "I guess I'd better know too much about this."

He hung up. So did Eddie, thoughtfully. The Old Man was acute. He'd long made it his business to know what transpired on his busy division. He wasn't slipping. Eddie decided it would be difficult to put one over on that brass hat. He'd not try it himself.

He turned a Redondo two-car train from the main line and watched it swing from sight beyond the car barn. Burton was headed across the sidings below. He would board the next local and go back to Sixth and Main.

Two men had just crowded themselves into an automobile parked on the narrow street beside the barn. Evidently they had seen Burton come down from the tower, for they stared at him intently while they conversed rapidly together. Abruptly they got out of the machine again and crossed the switches and intercepted the trainmaster.

Burton nodded to their greeting and their questions. He led them toward the main line and pointed to the crossing, now jammed with two lines of slowly moving automobiles and trucks, the height of the evening congestion. Then Burton indicated the electric trains passing through these lines of machines, interrupting the highway traffic. He nodded and explained and readily answered the eager questions of the two.

One of the men was short and burly. He carried a large camera hung to his person. The other, thin and lantern-jawed, smoked a brown paper cigarette furiously. He was bent slightly in the middle as he leaned close, intent on what the trainmaster said.

EDDIE felt a sudden and premonitory scurry of nerves down his back as he considered these two strangers who seemed so interested in the Pee Ee's operations. He missed responding to a glowing approach indicator, and a three-car San Pedro train had to check and scream at him a second time to get the home signal.

Even Burton ought to be able to recognize those two as newspapermen. They were as standard as the gage of most railroads. They were, of course, from *The Sentinel,* and they were seeking something lurid to print and picture about the "Red Reaper." They were roving the grade crossings in the hope of finding a misadventure in the making, or as shortly after it occurred as possible, that they take pictures and chronicle it to further the newspaper's crusade.

And Burton was lending them his aid and comfort. He was likely telling them that this was one of the busiest highway crossings on the system, a vulnerable spot. It wasn't beyond possibility that he was giving them the profound opinion of an operating official as to the hazards here present. In which case he would probably read these convictions printed boldly in next morning's *Sentinel.*

Anybody who didn't think Trainmaster Burton was dumb had just one more guess coming about that. Mr. Donaldson should still be over there in the passenger station, and he ought to know about this at once. Eddie wheeled to the wall telephone, and his lean, freckled hand slipped to the crank to grind out the station's call.

Then some detail in the milling scene below caught in the corner of his eye and his hand paused on the bell handle. Hunches come out of adjacent air and you had to be acute to catch their signals. You developed a faculty for that through years of handling fast schedules. Some item down there in the hurrying picture of the busy four tracks and the intersecting congested highway

gave him a hint of developing hazard. The elements of accident were forming, but they were combining so rapidly that Eddie couldn't for a second pick out the critical parts. His crooked fingers hung to the crank as he gave the crossing spectacle a quick scrutiny.

The outbound three-car San Pedro train was cruising down upon the intersection. The motorman had sounded his crossing whistle, and now he was clanging his gong. Wigwag signals were waving their warnings. Automobile traffic had paused on either side of the tracks to let the train through. The crossing was clear as it approached, and the motorman gave the controller another notch.

Then Eddie's eye focused an aimless item of chance, a little old man in an ancient automobile that moved along the line of waiting motors on the west side of the crossing. The man was perched resolutely upon the high seat and gripped the steering wheel with firm determination. His machine moved with a slight occasional jerk. The line of waiting automobiles, the wigwag swaying its warning in his face, the train's whistle and clanging gong, apparently hadn't penetrated his deep concentration.

Inexorably he drove the shabby vehicle forward as if he were assured that nothing would ever dispute his passage. The old fellow was entirely oblivious of the passing scene. He moved along as if he possessed all of time and space that he required.

There wasn't a thing you could do in the intervening fraction of time to cause the little man to pause in his blithe tour and step aside from disaster. A crash was as inevitable as rising taxes. You could feel the irresistible magnet that drew the three-car steel train and the dilapidated gas-buggy together.

The three seconds immediately preceeding the castrophe seemed to hang reluctantly. The idling motors of the waiting line of automobiles died to expectant whispers. A Watts Local paused beside the tower and the motorman tapped a request on his gong to be let into the barn. A Santa Ana inbound called from its obscure distant signal. Eddie's forefinger had cramped on the crank of the telephone.

Serenely the little old man drove his ancient machine onto the four tracks. The steering wheel jittered in his hands as the front wheels bucked on the rails. The engine gave a strangled cough of belated fright as the three-car train loomed over the struggling machine.

There was the sharp explosion of compressed air as the motorman glimpsed the ragged automobile and he shoved the brake valve handle all the way around. Brake-shoes slammed. The long steel car nudged the little machine with clumsy disapproval. The fliver came apart like a frail chicken coop. Pieces washed over the head end, then cascaded down the bumper and were caught on the tripped fender. The train stopped with a shudder at the instant of collision.

The little old man sank in the wash of wreckage and disappeared in the heap of litter. But he stood up at once, shedding splintered parts of his machine. He blinked mildly behind glasses that were still unbroken, as if he had just recalled something of immediate importance. His hat was slewed over one ear and slightly mussed. Otherwise, he had experienced no personal harm. It was just one of those things.

Eddie began to breathe again. He let go the dispatcher's telephone. He caught the sound of running feet below and learned from an open window. Burton and the thin newspaper man were

running toward the wreck. The burly man with the camera was scrambling to the roof of the local car by the tower. From that height he began taking pictures rapidly. He shot the scene of the accident and its environs in quick takes. He even turned like a sharpshooter and snapped the thing twice in Eddie's face.

THE claim agent had Eddie up to his office next morning for detailed questioning on what he had observed of the accident. On his way out he stopped at Mr. Donaldson's office. The Old Man likely wouldn't be amiable after last evening's catastrophe and consequent publicity, but Eddie conceived he had a duty to perform.

"Seen the *Sentinel?*" the superintendent demanded when Eddie showed himself.

Eddie winced as O. J. spread the paper out before him. He already knew its front page content very well.

The familiarily repugnant banner line across the front page read: "The Red Reaper Strikes Again." Beneath that was pictured several scenes taken at the Watts crossing accident. There was the Pacific Electric red train, the shattered machine draped over its blunt nose. The little old man was shown standing knee-deep in the wreckage of his automobile, and he appeared in an attitude of terrified supplication. There was some fraud here, for he had not then or subsequently shown the slightest concern, except that the Pee Ee should replace his relic with a reliable automobile.

Trainmaster Burton appeared in a picture in a kind of spread-eagled posture, suspended in midair and frozen in space. An inserted arrow pointed him out, and an inscription declared that even this high official of the line was horror-struck at this pitiless devastation.

In a circle in one corner there was a vague likeness of Eddie leaning from the tower window. Stray breezes might have been toying with his locks, or else the photographer had cunningly retouched them, for his hair stood on end as if in sheer freight. The *Sentinel* remarked the horror depicted on the towerman's face as he watched the crash.

Eddie shuddered and he pushed the paper from him. Donaldson's eye glinted grim humor.

"Good likenesses of you and Burton," he conceded. "If you two could do this act at will, you ought to be in pictures."

"Yeah," Eddie grumbled; "my wife made a similar remark. But what I wanted to say was that Burton practically handed them those photographs and that eye-witness story. Those two men from the *Sentinel* had evidently been prowling around, just trying to find something, and hadn't. They'd got back in their automobile when Burton descended the tower stairs. I saw them get out of their machine and head him off. He conducted them about and likely gave them his own personal lowdown on the hazards of that crossing."

"You mean," said O. J. slowly, "that Burton was taking them on a personally conducted tour of the interlocking plant?"

"He was!" said Eddie. "If he hadn't shown up when he did, or if he'd shooed those two off when they tackled him, they'd not have been present to take the pictures and get the story they've spread all over the front page of their paper this morning."

Donaldson pondered, then shook his head. "I believe every word you say," he agreed. "But nobody else would. You couldn't convince even his worst enemies that he is as dumb as that."

"I guess not," Eddie admitted.

"Those dumb ones have all the luck. Hereafter, when he's around me, I'm going to keep my fingers crossed."

THE evening rush slackened at dusk, and Eddie lit two lanterns and set them by the door for emergencies, as prescribed. Slauson Junction called on the tower telephone to report an extra freight headed for the port. An approach indicator came on as he talked with the Slauson operator, and he stared at the glowing disk in some surprise.

Indicator 18 warned of a train approaching from the Santa Ana Line, but no regular train was due from there, and no extra operating down there had been reported to him. A freight train was due within about forty-five minutes, but that was more like to be late than early. He checked back in his mind as he hung up the receiver, but he discovered nothing to enlighten him.

If it was a freight, he ought to put it up the local track. If a passenger, its place was on the main line. But you couldn't tell which it was from the tower. The line curved through the buildings of the town. You couldn't see the distant signal or glimpse a train approaching. And even a tower operator isn't a mind reader or has a telescopic eye.

"I'll put him up the main, and see what happens," Eddie decided.

He caught no acknowledging whistle as he plucked out the levers, and he couldn't see any gleam of a headlight through the illuminations of the street lamps. He waited. He let a southbound Newport through. A northbound from San Pedro wheeled in and screamed for the signal. But he couldn't have it with the way cleared and locked to let in the Santa Ana Line train. The San Pedro slowed and stopped at the home signal and blew out his flagman.

*I wonder did that motorman go back to sleep after he got the board,* Eddie inquired of himself, *or did he decide he didn't want to come in after all?*

He waited uneasily. A tinge of burning rubber tainted the air. Likely from skidding tires in the automobile traffic. But it didn't smell exactly like that, either. Nerves began to crawl along his back. Then they tightened.

*I can't block the main for the rest of the evening for that bird,* he remonstrated with himself. *If he don't want it, I'll take it back.*

He pushed on a lever and it notched in quietly. Derail and home and distant, they all slid smoothly back to normal. But as the last one clicked into place a breaker on the switchboard against the farther wall kicked out with a sharp hiss. Sparks leaped from the board and a red light globe glowed suddenly on the pannel.

*Damn!* Eddie thought. *I wonder if I somehow put him on the ground?*

He crossed and closed the breaker switch. The red light died. He tugged easily at the levers again. They came out without resistance.

*That don't add up,* Eddie decided. *Something is on the loose around this plant.*

The northbound San Pedro reminded him again shrilly that he waited at the home signal. A Long Beach was coasting up behind him, checked by his flag.

Nothing appeared from the Santa Ana Line. No glint of headlight or call of the air whistle came to him. The stench of burning rubber increased. Something was going haywire, fast and foul. He shoved the levers back to normal. Sparks hopped and crackled as the breaker switch kicked out again. Tight little puffs of smoke bloomed and melted. Juice sputtered and fried.

The burning smell scratched his

throat, and a thin haze clouded the lights. Specks of sullen red appeared among the relays and coils at the back of the machine. Highline current was burning into the plant from somewhere.

A tower all charged with high voltage from the trolley wire wasn't a comfortable place in which to work. He pondered on the things that could have happened. He'd guess that the trolley wire had shorted to a 110-volt wire on the same pole. But that would likely take a long while to burn into the plant. Meanwhile, any ordinary piece of metal would melt away quickly under the intense heat and clear the short circuit almost at once. This was apparently coming in hotter every minute.

Smoke thickened in the room and stung his eyes. Burning relays sizzled softly. The light in a pot signal across the way flickered and died slowly. If this hot stuff got into the batteries it would burn them up. He crossed and threw the switch and cut them out. Fuses cracked as lights in the tower and the signal lights outside on the AC went out. The plant was dead and burning.

He threw up the windows all around the room. The thin haze stirred lazily. The glow from nearby street lights made a ghostly radiance in the darkened, smoke-choked tower. A motorman sauntered in from the street and crossed the sidings toward the car barn.

Eddie yelled: "Hey, mister! Bust up here and help me put out a fire."

THE motorman clumped up the stairs. He paused in the doorway and coughed as the smoke seeped into his throat.

"What do you want me to do?" he inquired, peering about in the gloom.

"Take the fire-extinguisher and douse those relays," Eddie ordered. "But be careful. There's a lot of hot juice kicking around."

He was regarding the dispatcher's phone warily. This wasn't a situation a man could handle with what aid he found there. But you couldn't tell where that highline was shorted in, and if you got yourself looped into that voltage you'd get yourself kicked through the roof. Eddie turned a flashlight on the floor under the wall phone to make sure it wasn't wet and thereby shoot some hot juice into him. Gingerly he unhooked the receiver and brought it towards his ear till he heard the hum of normal induction. He flipped the crank. The bell tinkled.

"Dispatcher!" a voice seeped through the receiver.

"This is the Watts tower," Eddie reported. "Hot juice is coming in from somewhere and burning out the equipment. The plant is dead, both the AC and the batteries are cut out, but the hot stuff still comes in. Will you have the electrical department rush me some help? Call my maintainer first. He knows the plant. I've got to roll the switches by hand now, and signal the trains through by lantern. There'll be delays."

"Right!" the dispatcher snapped. "Keep the trains rolling as fast as you can. I'll get help to you."

The motorman had been fumbling along the wall. He found the small hand fire-extinguisher, took it down and began pumping it briskly, shooting the foaming liquid in quick jets on the smoking relays. They crackled and hissed. Misty steam made white patches in the gloom.

As Eddie turned from the telephone, red dots danced in a jet of fluid from the extinguisher. At the next squirt a hot thread leaped up the stream and broke at the metal nozzle. The motor-

man jumped; he flung the little brass cylinder from him and wrung his hands and swore.

"Man, did I get a shock!" he growled. "That juice ran right up the stream of dope and bit me. To hell with it! I'll not monkey with that stuff." He departed down the stairs without reluctance.

The liquid from the small hand-extinguisher was likely a fair conductor for the wild current, and the metal jacket would also take it. Evidently the thing wasn't intended to work on charged electrical equipment. Eddie took down the big extinguisher and inverted it. He held to the rubber hose behind the metal nozzle to ward off the erratic juice. He soaked the relays and coils till smoke and steam drove him to the door. He upended the big container again and set it in the corner. He caught up a lantern and fled down the stairs.

All the accustomed spots of colored light were gone from the switch-stands and signal-bridges. It made the plant unfamiliar under the distant glow of street lamps.

Two trains were held at the northbound home signal, and two more clamored at the southbound. Headlights interlaced and blinded him. He threw back the lid of a switchbox and peered at the mechanism under the dim light of his lantern. The motor was cut out, but you couldn't know if this lawless juice were getting in to it or not. This one wasn't smoking, but there was hot stuff all around. He rolled the big, greasy gear wheel and the switch points of the derail closed. He thrust spikes into the holes in the ties to keep the points in place, now that the motor no longer controlled them. He signaled with his lantern to the motorman of the first northbound to come ahead. The car moved forward.

"Keep going, but take it easy," Eddie called to him as he came abreast.

The car rolled on slowly, and he swung his lantern at the one behind. He climbed to the lower front step as it came along and clung to the gate bars and rode back beyond the smoking tower. He dropped off to roll and spike more switches. He started the southward flow of trains moving slowly through the plant.

When these were clear he let a local out. Then the freight train from the Santa Ana Line clamored to come in. He'd have mostly cars of citrus fruits, and he shouldn't be delayed so that he'd miss the transfer with his perishables.

You had to be pretty fit to cover all that ground on the run, and line up the switches by hand and keep the trains rolling as fast as they came to you. And you had to be careful that the points were set and secured the way they should be. Now, all you had to do to tie up everything was to put a train on the ground at the right spot. He shed his coat and trotted back and forth through the plant as the cars drifted in cautiously.

THICKENING smoke bloomed from the windows of the tower. The structure looked like a gigantic mushroom in the dim light. He climbed the stairs and drenched the relay board with the extinguisher.

The wail of a siren broke out and approached. The city's fire truck swung from the main thoroughfare onto the side street. It drew up beside the tower and turned its spot light on the smoking windows.

Eddie met the firemen at the foot of the stairs. "Looks like nothing but the instruments are burning so far," he told them. "But you'd better be careful up

there. Lots of high voltage is coming in."

"We haven't got anything to fight high voltage with," the captain called after him as he trotted back to the switches.

Some of the motors were smoking now. He rolled the gear wheels cautiously. You'd think that whatever it was had shorted the six-hundred would have burned itself in two and broken the short long ago. He let another local out, and lined up the main line for a southbound Long Beach. He went back to the tower. The firemen were still clustered about the bottom of the stairs.

"There's nothing we can do with that stuff," the captain assured him. "I won't fool with it. If the tower itself starts to burn, we'll come back." He climbed aboard, and the truck barked and moved away.

"A lot of help you guys are," Eddie shouted after him.

A line car with its tower thrust up against the street lights came down the local track and he headed it into the car barn siding. Two big touring cars slipped into the side street and stopped at the curb. Men spilled from the machines and surrounded him—a foreman and linemen and some men from the construction crews, any one the department could lay hands on to move into the zone of trouble.

Eddie explained swiftly, and the foreman moved toward the stairs. Another automobile turned into the side street, tires screeching. It slammed to a stop beside the tower. Trainmaster Burton eased his bulk from under the steering wheel and blundered toward them, showing the beam of a flashlight.

"Now what have you done?" he muttered heavily. "I told Donaldson you'd have us in trouble as long as you stayed."

Eddie shuddered. This wasn't going to help a bad situation in any way.

Burton flashed his light on the foreman and his men. "What are you standing around for? Can't you see the tower is on fire?" he yelled. "If there is hot stuff burning in, why don't you find out where it's coming from and stop it?"

The dispatcher hadn't used his best judgment when he'd notified Burton of the misfortune that had fallen on the Watts tower. Eddie crossed his fingers and withdrew discreetly from the line of the trainmaster's vision.

The foreman lunged down the stairs and tilted his hard length in the direction of Burton. "Are you in charge here, or am I?" he inquired with silken courtesy.

"I am, of course," Burton stated flatly. "So let's get going on this job. You have spotlights on those automobiles of yours. Send one each way along the main line and throw your lights on the trolley wires as you go. You ought to be able to find where it is that the lines have been shorted."

The foreman looked hard at Burton. An ordinary trainmaster meant nothing in his life. He was outside the operating department's jurisdiction and supervision. But Burton seemed to hold a more commanding position than his title indicated. He might be empowered to take over in any department in an emergency. You had to be careful of these officials with ambiguous authority. The foreman decided to sidestep and cover up.

"If that's the way you want it," he said, "that's the way she's going to be. But remember: you ordered it, and it's up to you."

Eddie said quickly: "I think this hot juice is coming in from the Santa Ana Line. When it started—"

He should have known better. That

was as far as he got. Burton interrupted abruptly.

"Get going, you men," he ordered.

The foreman glanced once at Eddie, then turned toward the parked automobiles. His men trailed at his heels. One of the machines moved slowly south along the right-of-way. The other turned north. The beams of the two spot lights probed among the high wires.

Burton mounted the stairs deliberately. The tower shuddered under the stamp of his feet on the steps.

*You have to keep sticking your neck out with this guy,* Eddie thought, *even when you know it won't get you anything but the worst of it.*

"Better watch out!" he warned. "There's a lot of that six-hundred loose and playing about up there."

BURTON grunted and disappeared through the doorway. The boomer glanced up and down the main line, and followed the trainmaster.

Smoke came up in wisps and banked against the ceiling. Angry red splotches had returned to the relay board. Burton stumbled on the little hand-extinguisher on the floor where the motorman had flung it. He searched it out under the beam of his flashlight. He picked it up and began to work the plunger, holding the brass nozzle close to the smoking relays. The liquid jets cracked as they struck the board.

"Hey!" Eddie protested. "Look out for the hot stuff!"

But you couldn't tell the trainmaster anything. Burton continued to pump the thing with grim determination. You couldn't stop him with reasonable remonstrance. But maybe he'd take counsel from abrupt physical reactions. Anyhow, Eddie was virtuously certain that it wouldn't do one bit of good to protest further. He awaited events with creditable concern—as a spectator.

There was moisture from the fire-extinguishers all over the floor. Should a man whose feet were planted in the wet happen to contact any of that wild current, he'd likely get a substantial kick. If Burton got himself tangled up in the high tension, it'd certainly remind him that a juice line had resources that a steam line hadn't. And maybe he needed that lesson. Eddie Sand argued himself out of further interference.

The boomer anticipated each succeeding event by at least one second, and he studied the reactions with righteous concern. As Burton continued to pump the extinguisher, red flickers mingled with the jets of liquid. The flashes hardened to a livid streak. Sparks hopped from the brass cylinder in the trainmaster's hand.

Burton winced through his entire bulk. He recoiled like a released spring, then bounced like soft rubber. He yelled and cast the instrument from him. He stumbled and collided with the door jam. He sprawled through the doorway onto the stair landing.

Hot juice had a treacherous attack. Its invisibility and alacrity made it terrifying and completely overwhelming. It gave you no opportunity to defend yourself or to fight back. Burton was thoroughly shaken. His knees were reluctant to sustain him as he pulled himself to his feet. He stumbled down the stairs, clinging to the railing. He sat down upon the bottom step and carefully felt himself all over.

Eddie sighed. Another automobile slid to a stop in the street below. Tim McQuiston, the maintainer, got out. He wedged past Burton and took the stairs in six quick lunges. He played the beam of his long, five-cell flashlight through the smoke in the room.

"You took your time to get here, Tim," Eddie suggested.

"Yeh, I was at a show," McQuiston said, peering. "What are you trying to do—burn up your job?"

"Listen," Eddie replied. "Burton has the foreman and his men looking over the main line for the short. But my guess is that this six-hundred is shorted to 110 somewhere down the Santa Ana Line. It started in here by throwing on indicator eighteen."

"What can it be that wouldn't burn itself out in all this time?" the maintainer demanded.

"I'll bite," Eddie said. "I'm just the operator here. You're the guy that's hired to keep the plant in shape for me to work. I'm merely trying to help you with my best guesses."

McQuiston grinned. He stamped down the stairs and across the four tracks. He disappeared around the curve of the Santa Ana Line, the beam of his flashlight probing the overhead wires. He came back immediately on the run.

"It's down there between the home and distant signals," he reported. "Looks like a heavy hoop of wire had been thrown up there and caught on the phone wire, then swung down and contacted the high line. Likely some kid, playing. Roll the switches and we'll head the line car over. We'll have that stopped right now."

FOURTH of July came on a Saturday that year. After weeks of high fog and dull, chill weather, the sun blazed forth with torrid heat. The hinterland sweltered, and the inhabitants thereof became restless for the sea and its cooling airs. Southern Californians and tourists alike moved to the beaches.

When the inhabitants of a highly populous area converge on a narrow strip of seacoast, congested traffic is inevitable. Crowds condense and hinder their own free movements. Highways crawl with motor vehicles and rail lines are strung with trains.

The Pacific Electric swung all its equipment into service for the rush. The shops pushed all repair jobs, and had them cleaned up by the third. Older cars were taken from the storage tracks for quick inspection and lined up in the barns and surface tracks. The capacities of men and equipment would be strained to take the human flood to the sea shore, beginning Friday afternoon, and continuing on till Sunday noon, when the tide would turn and all that horde would clamor to be returned home within the short space of a few hours.

Holidays are not recreation periods for operating men of the Pacific Electric. Those times they are busy helping other folk on their excursions. Ticket clerks face lines of eager travelers, and the little cardboard tickets drop incessantly from the pounding daters. The conductor has to wedge his way into crammed cars to collect fares, crowding through tiny crevices in the mass of humanity, till by the end of the day he feels and looks as if he had been run through a mangling machine.

Motormen develop a slight cast to their eyes from straining them both ways at once while approaching grade crossings where motorists pour across the line. At the same time they must keep at least one eye on the way ahead, for trains are close-strung and may be slowed and stalled in your path at any instant.

The dispatcher plays the keys of his switchboard with dancing fingers as the calls pour in upon him: reports of arrivals and departures, delays, distress calls and all the grief he is loaded with when traffic is hot. At the same

time the terminal foreman in emergency must pluck crews to man the trains from thin air, because there are moments when he can find them nowhere else. And the stationmaster, who dispatches the equipment, has to fill each demand for cars whether he has them or not.

The organization of the division superintendent's office, trainmasters and their assistants, the Old Man himself, and his second in command, all forego sleep and continually range the congested cobweb of lines and crowded terminals, untangling snarls, keeping the restless masses moving to their destinations. The general superintendent is merely omnipresent.

For two afternoon tricks Eddis Sand watched the swarms roll by under his tower, and the empty equipment return like loose beads on a string. The tide of traffic had just turned when he came on duty on Sunday afternoon. A cool dampness had come into the air, and the crowds were beginning to desert the sea shore early. Packed trains were already rolling up from the beaches, and the procession was strung closer together as the afternoon wore on.

Eddie paced the bank of levers ceaselessly, notching them out and in as he kept the opposing lines moving steadily through the interlocking plant, and swinging the trains in and out of the main current from the converging lines. A second now was a considerable stretch of time, and a minute wasted could mean a bad snarl and tie-up.

From Newport and Balboa, Long Beach, San Pedro and Redondo, the trains, jammed with tired and sunburned excursionists, rolled by in a thickening stream, while the outbound main line surged with deadhead equipment going back for more. This would continue till long into the next morning.

THE air dampened and thickened in late afternoon. The sun had turned a deep red and was beginning to melt into a gray mist when a four-car train paused by the station across the way, and Mr. Donaldson disengaged himself from the jam on the rear platform of the last car, and got down the steps. He came across the four tracks and climbed the tower stairs. His steps dragged a little. His face was gray and the lines cut deep. But his eyes were alive, shrewd and watchful. He hadn't slept much for two nights. He sighed and nodded and dropped into the chair beside the little desk. He took out a cigar, lit it and sighed again as he puffed gently. At length he inquired:

"Everything moving through all right?"

Eddie nodded. "Not a break yet," he said.

Donaldson studied the operator as he paced the long board with quick, assured stride.

"Since that night your plant burned out," O. J. brooded, "I've wondered a time or two how you were able to keep the schedules moving through without much delay. It seemed slightly miraculous, considering you had to slide the gears by hand and the distance between the switch boxes. But I get it now," he added with satisfaction.

Eddie raised an eye brow as he cut a Redondo into the inbound torrent.

"It was because of your legs," the super explained amiably. "They are cut very long. With them you can cover territory quickly." He chuckled and nodded.

The Old Man was tired and thoughtful, but he wasn't depressed. In fact, he seemed slightly elated about something, and he had evidently paused at the tower a moment to relax and pass a cheerful word. He watched the lines of

electric trains sweep under the tower and move cautiously through the crawling automobile traffic at the highway crossing by the station. His motormen were handling their trains with alert caution, and he nodded profound approval.

"It seems," he remarked at last, "that Burton didn't do so well on the night you had your fire."

"Well," Eddie deliberated, "he kept his record at about the usual par for him. He didn't miss a chance to do things wrong. But some folks can get along that way."

"The answer to that," O. J. said, "is yes and no. Apparently nothing came of that so far as he was concerned, except that MacIntyre told him off. Mac won't have his men interfered with outside his department, and he can make that stick. He runs it so well they just take him like you do water before the well goes dry." The Old Man chuckled again. "Mac kind of knocked Burton's ears down."

The lines in the superintendent's face relaxed. He took two gentle puffs on his cigar. "I thought you might like to know," he added.

"Much better," said Eddie, "I'd enjoyed hearing and observing in person what occurred on that occasion."

"Oh, the incident didn't consume any time," O. J. assured him. "Mac is economical, even with his words. Has Burton been around to see you since?" he inquired.

Eddie said he hadn't.

"It's hard to say what final effect Mac's remarks will have on Burton," Donaldson added, "after he has had time to digest them. It's possible he will blame the whole thing on you. He can't get over the idea that you are dangerous to operations. He may come back at both of us."

Ordinarily you'd think a brass hat was away out of line discussing another official so freely with a subordinate, but there wasn't the frigid discipline on the Pacific Electric that you encountered on larger roads. Besides, the Old Man was slightly obligated to keep his chosen ally up to date on procedings.

Mr. Donaldson puffed once. "Burton is down at Wilmington this evening, lining up the specials to bring the crowds back from the Catalina boats."

The low sun was smouldering behind the bank of gray mist. He studied it anxiously.

"There's going to be a fog tonight," he predicted. "You take it easy, Eddie. This is going to slow us down, and I don't want to hear of anybody getting reckless. I don't want casualties on my division, if it takes a week to get that crowd home."

The tired lines came back to his face as he stared at the congested motor traffic choking the thoroughfare at the crossing of the four tracks.

"If we can get through this two-day holiday without tangling with an automobile at a grade crossing," he said, "the *Sentinel* will pull off that 'Red Reaper' campaign of theirs. Seems too much to hope for, with all these machines on the highways and all the trains we have in operation. But we'd got by up to an hour ago when I talked with the chief dispatcher."

"How come?" Eddie inquired. "Has the paper changed hands?"

"No," said Donaldson. "But our General Manager finally got to the publisher and cooled him off. If we don't have a bad crossing accident through this holiday, the paper will stop its campaign against us. What's more, it will even give us a kind word if there's any excuse to without denting the publisher's dignity."

The super walked to the doorway.

"I must get back to Sixth and Main and see how we are lined up there. Take it easy, Eddie," he instructed again, and went heavily down the stairs, a sturdy gray man facing his heavy responsibilities faithfully.

DAMP twilight shut down. Street lamps and the lights through the interlocking plant winked on. Misty haloes clung to each gleaming point. Then thick fog rolled up from the sea and shut the tower into a cramped gray circle through which the lights glowed obscurely. Clamor of traffic increased. The wet air was confused with indistinct warning air whistles and gongs, the far calls for the signals and the abrupt and urgent demands for flagmen to protect. Automobile horns honked and shrilled and idling motors were raced impatiently.

Fog clung to windows and dripped from eaves. Vision from the tower was restricted to the dim ring through which the blinded trains moved at reduced speed. Headlights made tarnished circles that glowed beneath him for a moment and then were washed out in the damp gray dark. The nearer signal lights were wisps of vague color.

The high tower was like an aloof sentry box above the clamor and confusion; an obscure guard that fed the trains into their proper channels, or checked and held them when the way was obstructed. He could see little of the operations he directed. The enunciator croaked and the frosted disk of the approach indicator glowed. He moved the big red trains in their appointed grooves by these signs.

Southbound, the deadhead trains picked up speed the instant they were certain the highway crossing was clear for them, the motorman notching out his controller handle for a dash along the protected right-of-way. Fog laced over the blunt noses of the cars and then boiled up behind them as they disappeared into the gray curtain. The northbound trains, with their packed loads, nosed up to the crossing, banging their gongs to clear the way of the crawling highway traffic.

Low-swung locals fumbled out of the murk and turned into the barn. The outbounds banged across to the opposite side and crept away toward the city. A freight train of loaded tank cars moaned from the Redondo Line and held up all other trains while Eddie sent it across to the farther side of the four tracks. The great electric locomotive muttered with stubborn power. The heavy tank cars stumbled reluctantly over the switch points. Trains from north and south eased up to the misty red home signals, pleaded for the board and then blew out their flagmen.

Off to the east, a lone Santa Ana car called wistfully, a dispondent item lost in the far mist. A local poised on the siding below, ready to follow the freight across when Eddie Sand gave him the signal. All that rail traffic, save the worming oil train, paused in the gray blanket awaiting the tug of the levers.

The caboose rocked on the crossover and then the tail lights died quickly in the fog. He gave the local the pot signal, and it scuttled across and cleared. He let the Santa Ana in, then started the ceaseless flow along the main line. Whistles piped as the trains took up their blind way through the night. The mutter of steel wheels and the cry of juice as motormen fed the motors, filled the muggy dark.

The highways were snarled with automobile traffic trying to untangle and get home. The crawling lines broke in

two at the crossing as the clamoring trains approached. Blurred headlights drifted in swarms. The whisper of exhausts palpitated through the fog. Tires screeched under suddenly clamped brakes.

After two exhausting holidays, all these tired and sunburned thousands out there in the gray dark, in automobiles fighting the congestion, and snug in the trains, were impatient to be home. Eddie thought of restless America benevolently as he paced the bank of levers. They made jobs for railroad men.

BEYOND the four tracks, a little south of the tower, a paved street came from the east and then turned in a short curve as it broke off at the railroad and swung northward parallel to the right-of-way. Eddie became aware that much motor traffic had developed on this side street.

Evidently, these impatient drivers were making a blind detour in the hope of winning clear of the clogged main thoroughfares. Likely one or two had turned from a main artery farther east where they had been compelled to creep in the solid line of machines, and were now trying to find unobstructed back ways that would take them quickly to the city. Other motorists, sensing that these knew a clear road out of the jam, followed, fumbling through the fog for a congestion-free outlet, creating a lateral procession. The trickle of machines in the narrow street became at times a thin stream.

Some of the more reckless, not sensing there was no crossing here, crowded the turn closely as they drove through the opaque mist and became aware of the curved corner only when they were directly into it. Brakes squealed and tires slithered on the damp pavement as drivers became suddenly aware of the four tracks in their line of flight. The impatient and the reckless created the hazards on a night like this. It looked impossible for the interurban trains to avoid them all. Under these circumstances, Mr. Donaldson's gentle prayer that they would seem futile.

One car stormed out of the fog and rode the outside curb as the driver belatedly checked and swerved and its momentum flung the machine across the street. Feminine screams added another note to the other night noises as the car straightened out and roared up the street.

*It's good that corner curves instead of breaks at right angles,* Eddie informed the heedless turmoil, *else some of those people might land in my lap.*

The last of the Catalina specials rolled dripping out of the fog and paused an instant at the passenger station. Trainmaster Burton got off the rear end and turned toward the tower.

Eddie groaned: *If ever I had any chance of getting through this evening without bad trouble,* it's sure busted now.

Burton caught sight of two figures above him on the high freight platform at the rear of the station. He paused and peered then took some furious steps toward them. The two stood fast and stared down at the trainmaster belligerently. Eddie peered at them through mist. One of the men was short and burly and had photographic equipment slung about his person. The other was thin and slightly dented in the middle.

*Well, if it isn't the news hawks from The Sentinel,* Eddie thought. He reflected uneasily. *Now, I wonder how come they are out on this assignment when the war between us is declared off? Do you suppose their boss hasn't let them in on that yet?* he asked him-

self. *Or perhaps their paper isn't going to be as amiable as O. J. said?* He shook his head as Burton strode toward the two. *Anyhow, you'd wonder how they could take pictures in this light.*

The T. M. boosted himself onto the high platform and faced the two. He gesticulated with his head thrust forward. The newspaper men stood fast and apparently answered him pugnaciously. The colloquy lasted some minutes, but the two remained on the platform when the other man turned away.

Burton tramped menacingly across the tracks toward the tower. The structure shuddered to his tread on the stairs. He heaved into the room and eyed Eddie with dark suspicion.

"Those two newspaper men are hanging around here again," he accused.

"So I see," Eddie agreed.

"And you didn't do anything about it?"

"Well, no," the boomer admitted. "I'd say there isn't much to be done. You can't legally run them off property dedicated to the public use. You might get yourself in jail and the company in a jam if you use violence on them."

He added to himself that Burton hadn't had much luck ejecting them from the premises.

"Just the same," the trainmaster muttered, "I'll certainly move them out if they try anything like they did the last time."

He sat down at the desk and peered out at the two figures still on the platform. He took out a toothpick and chewed it vindictively.

A SUDDEN stiff breeze blew in from the sea. The mist frothed like suds. The wind exploded in a gust that tore a rent in the gray curtain. The moon shown through for brief seconds. Then the rift closed and the blanched circle crept back about the tower.

A faint throb, like the muffled beat of a racing heart, pounded through the cautious traffic noises. Eddie's senses tightened to the sound before he was fully aware of it. The patter grew in volume with each tick of the deliberate clock. Its breathless rapidity created a rising pressure of suspense. His nerves flinched at some anticipated disaster.

An automobile exhaust caused that fluttering sound. The gray blanket, the obscurity, likely made it seem that the motor was turned up to a more reckless speed than it really was. It was the only sound of haste in all the other traffic noises in the moving fog, which made it more pronounced. But you couldn't help thinking the sound was ominous.

Eddie turned from the board and threw up a window. Damp air crept into the tower.

"Hey!" Burton exploded. "Shut the window. That air feels like a cold shower."

The enunciator clacked and two approach indicators glowed at the same time. Eddie flipped the levers to let the two trains through, north and south. Then he thrust his head outside the window.

That incessant fluttering throb was diffused by the fog. It seemed to come from all directions at once. Its ghostly quality made it seem more foreboding. But you knew that the machine couldn't keep that pace through all the obscure turmoil without disaster. Not for many seconds.

The elements of accident were fusing fast out there in the thick mist, and Eddie leaned farther out of the window straining to locate them. Then two dim blobs of light burned through the cur-

tain beyond the four tracks. They were the headlights of an automobile on a blind detour, coming rapidly up the side street from the east. The throb of its engine deepened as the headlights broke out of the fog.

Time wasn't a reckonable element in the matter of that episode. The event emerged from the fog and went through its gyrations in a splinter of time. Then it ceased to be a moving part of the aggregate of existing things. From his high, aloof post Eddie followed the blurred items develop and terminate in one deliberate breath.

You could make a guess as to why that motorist was driving so recklessly in the blinding fog. Anyhow, he was coming too fast to make the turn. He was well into the curve before he discovered that his way was obstructed by the four tracks. Then, without much judgment, he set his brakes.

Skidding tires made a high, terrified screech. The two headlights slewed to the right and bounced. They reared as the front wheels struck the curb and leaped the low embankment. The car swerved to the right under the wrench of the steering wheel. It swayed savagely and exploded a cloud of dust from the soft right-of-way. Somehow it cleared a line pole and guy wire, and turned sidewise as it struck the first rail. A high scream floated in the fog. Rubber tires chewed frantically for a hold on oiled ballast and damp steel.

It was an open car with windshields front and back. You could dimly see the four muffled occupants in the careening car as it tipped and slammed over on its side like a capsized boat and tossed the figures out across the rails of the main line.

One figure struggled to rise. Then it collapsed and lay still. None of the others moved. The dark bundles weren't very distinct under the dull opposing beams of the headlights of the two trains approaching from north and south. The glow of street lamps through the fog confused their outlines and blended them with ballast and rails.

A FIVE-CAR train of empty equipment rolled out of the mist from the north. It had just cleared the crossing and was picking up speed. You could tell that without a glance. The thin whine of wheels gave you the speed and distance. Clear of the highway crossing hazards for the moment, the motorman was winding her up.

Close in from the south, clear of the home signal, a three-car train jammed with passengers was already sounding her warning for the highway. The two trains would pass each other just beyond the tower, about where the four figures were sprawled across the rails.

The mist made the light tricky, and the front windows of the cars through which the motormen peered would be blurred with the fog. And motormen's eyes became tired with ceaseless, straining vigil. Dark bundles on the right-of-way might be sized up as floating spots in the vision, or wouldn't be seen at all.

You couldn't make time fit all the things there were to do in the actual seconds allowed. You had to stretch it to cover a special interval. And you had to get all the essential details of the picture in the first glance, and go on from there. Thoughts couldn't keep up with so many instant elements. You cracked the items by the instincts you had developed in the years you'd spent on the high iron.

One additional odd bit wedged into Eddie's consciousness. The toothpick now hung precariously from Burton's open mouth. The trainmaster stared hard at the dim picture that had de-

veloped below. But he couldn't make it register.

The automobile hadn't stopped bouncing when Eddie snatched a fusee from the shelf at his left hand. He slipped the cap and struck it alight. He leaned from the window and flung it southward. It spluttered into smoky fire as it arched and fell between the main-line tracks. The light of it bloomed quickly into a misty red balloon. A glimpse of that, and a motorman would dynamite the brakes.

The headlight of the southbound train dialated swiftly from the left. He could read the lighted letters of the destination sign. The cadence of its singing wheels mounted with each quick second. With the half of him hanging out of the window, he listened through the next interminable second after he had cast the fusee for the snarl of compressed air and the slam of brakes. An alert motorman couldn't miss that red flare. Then he'd stand her on her nose.

But nothing interrupted the smooth whimper of the wheels and the drone of the motors. Eddie caught a dim glimpse of the motorman through the dampened front windows against the background of the lights inside the car. He was bent sidewise, his right arm extended toward the corner, his left hand holding down the controller handle. His head was turned as he reached for his stool.

The motorman had been standing up at his controls through the fogbound traffic of the city. That was the order when the going was obscure and crowded. Now that he considered that his train was in the zone free of street and highway hazards, he had turned to drag his stool from the corner behind the railing, to adjust it under him for a comfortable seat to the end of his run. For that instant, in apparent safety from obstructions ahead, his eyes were turned from the main line. He hadn't yet caught the red flare of the fusee that ballooned in his way.

It wasn't possible to guess how long it would take him to drag out the stool, get seated, then glance ahead and catch that peremptory signal. It might take the one extra second that would make it too many. There wasn't anything you could do about that up there in the tower. Now that you'd lined up the signals and the switches for him, you couldn't take them away. They were locked till his train was clear of them.

FROM down there on the ground twenty feet below and a dozen jumps away, you could roll the switch that would swing the train through the local line crossover and away from the limp figures draped over the main line rails.

The lightning thought kicked Eddie like high voltage. He crowded his legs through the window sidewise, something of a contortion. He barely broke his fall with a sliding grip of fingers on the ledge. He twisted as his feet struck the ground. His legs reached and drove space under them in hard lunges. He plucked his key ring from his pocket as he sprinted for the switchbox.

It wasn't easy to see the protruding rails in the muffled flare of the headlight facing him, and the uneven oiled ballast was greasy with fog. But you'd better not slip or stumble. You'd likely stretched the time at hand beyond its limits, anyhow; and you couldn't trust the fender on the front of the car to pick you up if you fell flat in front of the rolling wheels. You had to keep one eye on what was underfoot, the other on the train and the switchbox with the

fender sliding down upon it at the same time. A three-way job.

The boomer came down and folded by the box at the end of his last long-legged stride. The train loomed over him, vague with lights for its entire length. His blind fingers fitted the key into locks and twisted. Eddie flung back metal lids and his hand slid over the mechanisms inside.

He'd had practice of this that night the plant burned out. His fingers instantly found the brush and raised it to cut out the motor. He skinned a knuckle in the fierce shove he gave the gear-wheel to throw the points over. He had to shoot a spike into the hole in the tie and get clear before the front wheels got there. He found the hole and tamped the spike once with the heel of his hand. The fender touched it as he snatched it away and hunkered back in the clear.

The thin whine of the wheels changed to a slam and grunt as the head car swerved to the right and took to the crossover. Eddie caught a profane ejaculation as the motorman, still wrestling with his stool, was thrown off balance. Car wheels slammed at the switch-points and the train headed for the car bar siding. The power snapped off and the sigh of the motors died as the motorman released the controller and it shot back to neutral. Barkes exploded as he shoved the brake valve handle over. The northbound train had come to a stop beyond the thin red balloon that arose in the mist.

The breeze rifted the fog and the moon beamed placidly through the gray curtain. Headlights and street lamps, tinted by the flare of the red fusee, made a misty radiance over the disorderly scene. Soft explosions of light were added as the newspaper photographer moved about quickly and shot his flares and snapped his camera. The thin reporter seemed to be acting as his assistant. These fellows were quick on the trigger, too. They came toward the tower man and paused and a flash glittered in his eyes.

Eddie swore and hastily untangled his legs and stood up from his crouch. "I'll sure as hell look this time like I was in solemn prayer," he remarked bitterly.

Trainmen came hurrying from the barn, and others dropped from the two trains. The prone figures draped over the rails began to sit up. The camera-man was still shooting.

Eddie turned back to the tower, his post of duty. Burton still peered from the open window, the half of his bulk stuffed through the opening. He burbled unintelligibly. He wheeled as the operator came back into the room. He shoved past him through the doorway and thundered down the stairs. A little late, but he'd finally realized there had been a misadventure and it was up to him to take charge, to get the trains moving before the holiday traffic snarled into a jam, and to check the injured and get witnesses.

But he wouldn't have called the dispatcher, and that man should know at once. Eddie unhooked the telephone receiver. The dispatcher had somebody on the pan, and Eddie held the receiver to his ear and studied the scene below while he waited.

Passengers were swarming over the tracks and clustering about the four who had been thrown from the automobile, all of whom seemed now on their feet. The thin reporter was questioning everybody at once. The camera man had climbed to the bumper of the inbound train and was taking more shots. The breeze died and the fog crept back in a smoky circle.

THEN Burton projected himself into the misty picture. When violently agitated he could handle his feet very well for a big man. He lifted them high and flung them wide. You'd not believe him capable of so much enthusiasm. But of course it was the wrong time to go rampant. He ought to be cool and deliberate in cleaning up that situation, or he'd have everybody in a tangle. Now, where the heck was he headed for?

The trainmaster closed in on the camera man at a flat-footed run. The photographer had just struggled down from the bumper. Burton tried to snatch the camera, but the burly man elbowed him off. The thin reporter joined up and the two jostled Burton and edged him away as he continued his grabs for the camera. He was berserk now, furiously bent upon destroying the camera man's pictures. But the two from the *Sentinel* held him off.

Trainmen crowded in, and Burton yelled at them: "Here, you fellows! Break that machine and throw those two off the company property. Hurry up before they get away. We'll see if they print any more of those lying pictures."

That blithering idiot! *The Sentinel* would really crucify the Pee Ee if one of their officials assaulted the paper's news gatherers and picture takers on duty and broke up some of their valuable equipment. Eddie slid the receiver back upon the hook and vaulted down the stairs. A tower operator on this job seemed to have a considerable number of outside chores wished on him. He skidded through the gathering crowd of passengers. He took Burton by the arm and swung him about.

The big face was all screwed out of its habitual, moon-eyed calm. Burton was furious. Once, these two news hounds had beguiled him into grief for his company and himself. They'd made him appear ridiculous. Now, he'd caught up with them in another like attempt, which he'd not only thwart, but he'd be revenged besides. That resolve preempted his brain capacity. You couldn't dislodge that conception by any fair means. Eddie Sand gave up hope of moderate disuasion the instant he read that intent, contorted face.

The trainmaster was even more determined now than when he'd been warned about the hot juice on the rampage in the tower. It had taken some wild six-hundred to jolt him then. It would require something as violent to jar him loose from his forceful intentions now. As the trainmaster wrenched at the hold on his arm, Eddie set himself and clipped him with a lightning right to the chin. It was abruptly spontaneous, entirely unpremeditated and without considered reasoning. It just seemed the only thing left to do.

Burton reeled away, then braced himself and shook his head to rid it of the bees that buzzed inside. He blinked. Dull surprise and alarm unscrewed the ferocious expression on his face and left it dazed. The crowd seem to feel that this exhibition was an added attraction to the two-day celebration. It murmured approval and crowded closer.

Eddie motioned a pair of motormen. "Take him to the barn," he ordered. He herded three more trainmen together and instructed them briefly:

"Heave that automobile off the main line. Round up those four that were in it and find out if any of them are hurt bad enough to send for an ambulance. Get their names and addresses, and have them wait here till I rouse out a man from the claim office."

He rounded up the conductors of the two trains in the plant. "Get your passengers aboard and line up your trains

so you can start moving before we're all jammed up," he told them.

He turned back to the tower. The thin reporter was suddenly pacing beside him.

"That's a nifty right you have," he remarked. "I'd hardly have believed a guy that's nearly as thin as I am could jar a big lug like that."

"He stood still for it," Eddie answered. "It wasn't much of a shot."

"Mind telling a newsman your slant on what happened?" the reporter asked. "It won't hurt to get all the angles."

"Come on up into the tower," Eddie invited. "I'll answer while I get these trains moving again."

"Any Chance to Wangle a Pair of Passes to Seattle Out of the Old Southern Pacific?"

THE ringing telephone awoke Eddie next morning. He wasn't surprised. He knew the news before it came over the wire. Mr. Donaldson's chief clerk said the Old Man wanted to see him in his office—*right now!*

Sure! Stick your neck out and get it cut off. In the light of the morning after he could think of a dozen better ways of restraining Burton than smacking him on the chin. Assault on your superior officer! They'd nail his hide to the car barn. He couldn't now understand his actions himself. Maybe he'd gone through the business of diverting that train so fast that he hadn't been able right afterward to slow down his actions to more reasonable events. That would be a swell alibi. Except that it wouldn't work. And likely there'd be a picture of him in *The Morning Sentinel* showing him on his knees in a panic of supplication. The boomer shuddered.

When he arrived at the office, the clerk said O. J. was upstairs and Mr. Sand was to wait.

Donaldson came in an hour later. He eyed Eddie dubiously and waved him into the inner office. The Old Man was slightly bemused. That seemed ominous. He tilted his swivel chair and pulled *The Sentinel* to him and spread it out on the table.

"Seen this yet?" he inquired.

Eddie hadn't. He said he'd been afraid to look. "But if they've got me kneeling in wild-eyed prayer, I'll sue," he declared.

O. J. slanted it toward him. "I would, too," he said. "But it isn't as bad as that."

The front page was spotted with dim pictures of an overturned automobile, and people stretched over the rails of a railroad track; of crowds milling between two electric trains facing each other from a short distance. There was one apparently of Eddie himself, altho the resemblance wasn't striking. It showed him crouched alertly beside an

interurban car in a posture that seemed to indicate volent action, past or pending. The inscription related that this was the heroic tower operator who, at risk of life and limb, had saved the victim of a careless driver from death by mangling.

Headlines read: "Reckless Driver Invades Railroad Line Far from Crossing. Occupants of Automobile Escape Death Through Gallantry of Interurban Employe."

The article beneath might have been written by the Pee Ee's publicity department. *The Sentinel* drew down on heedless motorists and let go with both barrels. Then it dripped kind words for the interurban company's constant vigilance to avoid crossing accidents. It pointed with pride to its holiday record of no grade crossing accidents despite the number of automobiles speeding across its lines.

Eddie put down the paper with a sigh. "Sweet!" he murmured. "Very, very sweet!"

Mr. Donaldson nodded. "That's what the General Manager thinks," he said. "I've just seen him. But consider what would have happened if Burton had snatched that camera and destroyed it, then had the trainmen throw *The Sentinel's* men off the property. That story there printed wouldn't have been so sweet. The General Manager told me he had a time explaining Burton to the publisher as it was. It's known all over upstairs that you saved us there. And that you gave the reporter most of the dope he wrote about."

"I told him what actually happened."

"You're a persuasive cuss, Eddie. You must have got along with that news hawk very well."

"He's just a hard-working guy, like the rest of us."

"I know," said Donaldson. "But so is Burton, if you come right down to it. Only, he doesn't work effectively."

Eddie admitted that such seemed to be the case. "And speaking of him," he plunged, "what do I get for poking Don on the chin?"

Donaldson brooded. "There was a word about that from the G. M.," he said. "But only just a slight remark. Judging from his tone, I'd say that everybody had better forget it."

The super tilted his chair.

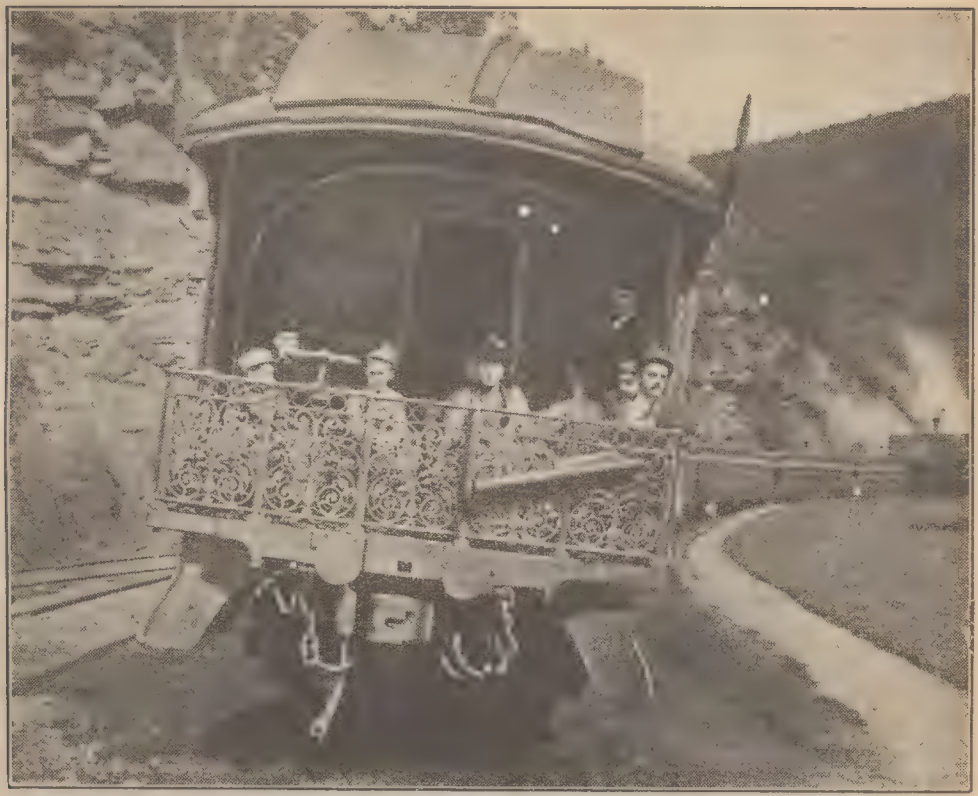
"Right now," he nodded, "MacIntyre and Burton seem to be the only ones who are at all unhappy about the whole thing. Mac thinks there has been too many extraordinary things happen at the Watts tower since you went there. He says he's noticed that trouble just naturally gravitates to some very reliable people, but that while it's not exactly their fault, still such occurrences do increase operating costs. Mac, as you will have noticed, is Scotch."

"Yeh," said Eddie, "I've noticed it. Which means that I'm through?"

"With him, yes," O. J. replied. "I called you in to tell you that I had put in for your transfer back to my department. I've got a good station for you."

Eddie hesitated. The careless road came out of the mist and unrolled endlessly to enchanted horizons. He caught the absorbed chatter of vigilant sounders woven into the quiet of the heights. Faint and far he could hear the pounding of big mallets against canyon walls.

"Look," he said, "my wife mentioned this morning that we'd been here a long while. Seems like it to me, too. I guess we'd better be moving on before we get stuck with this place. Any chance to wangle a pair of passes to Seattle out of the old Southern Pacific?"



*D. Sargent Bell photo; from John G. Smith Jr., 6701 N. 12th St., Phila., Pa.*

"Pennsylvania Special" Predecessor of the "Broadway Limited," Rounding Horseshoe Curve. The Coupler Here Is a Janney with Slotted Knuckle (See Page 19)

# On *the* Spot

ABANDONMENT of unprofitable branch lines by the railroads of the United States totaled 1,299 miles last year as compared with 1,783 miles the year before, according to figures compiled by George E. Boyd, associate editor of *Railway Age*. This is the tenth year since the record of abandonments was first compiled that they have exceeded 1,000 miles. The total for 1940 was 1,273 miles more than the mileage of new lines completed during the year.

The largest single abandonment, as well as the biggest abandonment of an entire road, was that of the Tonopah & Tidewater between Crucero, Calif., and Beatty, Nev., 143 miles. The second largest was that of a branch of the Minneapolis & St. Louis, between Conde, S. D., and Alaska, 103 miles. The Norfolk Southern stood third, with 50 miles between Suffolk, Va., and Edenton, N. C., while the Rock Island took fourth place by giving up 49 miles between Cameron Jct., Mo., and Beverly.

The second largest abandonment of a complete railroad was that of the Carleton & Coast, 20.4 miles. The Mound City & Eastern was third with 18 miles. It is significant that 13 entire roads permanently ceased operation in 1940. This compares with 17 complete abandonments in 1939, the largest for any single year.

Abandonments reported in any year include all lines shut down permanently during that year, regardless of whether or not the tracks had been taken up at the end of the year. When rail service in any locality is ended, the chief losers are, of course, the passengers and shippers. Not

only that, but every community along the abandoned line soon begins to feel the pinch. No railroad tax money is available for public schools; no railroad pay checks find their way into local cash registers. Charles H. Smith, the Pere Marquette agent at Alto, Mich., made this situation very clear with a fictional-fact story "Good Markets" in our January issue.

And now we quote from *The Star,* a progressive little newspaper of Normangee, Texas:

"Comes the story of a town in west Texas. It was a live, hustling, growing community. It was a railroad town. It had two freight trains and two passenger trains a day. Railroad employees who lived there, railroad agent, section foremen and hands, other workmen on the railroad payroll, added quite a bit to the monthly payroll of the town. And it was cash. The railroad paid taxes to help maintain the local schools. The town had a modern school system, of which it was proud.

"It was also proud of the fine concrete highway that came through the town. It was proud of the great freight trucks that brought products of wholesale houses and deposited them at the back door of local stores. It was proud of the passenger busses that passed through several times a day.

"Patronage of the railroad fell off steadily. Finally the company got a permit to discontinue service and take up its tracks. The railroad no longer paid taxes to support the city government. The loss of their taxes cut a big hole in the school budget. Many citizens, who had been regular patrons of the high-quality business houses in the town, now got in their cars and visited the larger cities not so far away. The number of local business concerns gradually lessened, stocks went down, the school system declined, and today the town of Perrin, between Mineral Wells and Jacksboro, is headed toward becoming another of the bleak and shabby 'ghost cities' of Texas."

Prior to 1917, abandonments were not recorded. The few lines that were abandoned from time to time were unimportant and usually were in sparsely populated sections, being generally logging roads or those serving mines, while they occurred so infrequently as to attract little attention. Beginning with 1917, however, in which year operation stopped permanently on 972 miles of main lines, abandonments have continued on a large scale ever since. The mileage abandoned in individual years ranged from 282 in 1927 to 1,995 in 1934.

During this 24-year period beginning with 1917, a total of 25,191 miles of lines have been abandoned—an average of more than 1,000 miles annually—while only 10,556 miles of new lines have been constructed.

Prior to 1932, abandonments in Canada and Mexico had been negligible. In 1932 and 1933, however, the Canadian roads abandoned a total of 282 miles, and since then abandonments in the Dominion have ranged from 55 to 399 miles a year. In 1940 the total was 111 miles. No abandonments were reported by the roads in Mexico, although operation is still suspended on several lines.

* * *

THIS is a forum for readers everywhere—reminiscences, comments, criticism. Also queries which cannot be answered adequately in the *Lantern.* Be as frank as you want. "Let your hair down." But please note: Every month we get at least ten times as much material for *Spot* as we can possibly use. Due to space limitations, nearly every letter has to be cut before it can be printed; many are crowded out altogether. So keep your letter short.

Each month we invite you to sit on the Editorial Board and help us to make up future issues of the magazine. You do this by stating what type of material you like best—in the coupon clipped from page 143 or in a letter or card. Returns from the March issue are still coming in. As usual, *True Tales of the Rails* heads the popularity list by a wide margin. Surprisingly, *On the Spot* rolls up a higher score than it ever had before. The March list now stands:

1. True Tales of the Rails
2. Branch-Line Hogger, Ed Samples
3. 50,000 Passenger Stations
4. On the Spot
5. Trail to Yesterday, Clifford Funkhouser
6. By the Light of the Lantern
7. Sea-Going Railroad, Campbell Davis
8. Railroad Camera Club
9. Locomotives of Denver & Salt Lake Railway
10. Model Railroading
11. Railfans
12. Along the Iron Pike, Joe Easley

* * *

WITHOUT claiming a gift of prophecy, we venture to assert that next month's front-cover painting, by D. H. Hilliker, will be one of the most popular pictures we have ever published. The subject is familiar to all railroad men: a passenger engineer's last run. The old boy has just climbed down from his cab to be greeted by his conductor, his niece, and the division superintendent, with other "rails" presumably in the background. In every way the scene is true to life. . . . Forty-three persons are known to possess complete files of this magazine from Dec. '29 to date. Latest additions are Earl H. Strouse, 550 Willow St., Pottstown, Pa., and Eric H. L. Sexton, Hydton Cottage, Belfast, Maine, who is now collecting issues prior to 1919. The other 41 names were listed previously.

# The Reader's Viewpoint

RAILROADING no matter how you look at it, is an exciting job. Talk with the old-timers—or, for that matter, with the boys handling trains today, and they recall thrilling incidents. When men gather at the end of a run, they sometimes tell odd stories. One of these centers around A. S. Prowse, a retired engineer (like myself), living at Sydney, Nova Scotia.

On a wintry day nearly half a century ago, Mr. Prowse, then a young man, was at the throttle of the locomotive hauling a snowplow that had been sent out from Sydney to clear the drifted road to Point Tupper for the express. At McKinnon's Harbor he got off to oil the engine. Imagine his surprise to find on the trucks a large and very unhappy Spanish rooster! Weather being bitterly cold, the bird had nearly perished. Mr. Prowse took it unresistingly into his cab. There it perched on a shelf and remained all night. Not even on the return trip did Chanticleer show any desire to leave, although many stops were made. Mr. Prowse hadn't the faintest idea how or where he had picked up the strange passenger. When he got back to Sydney, he presented his find to a neighbor who was a chicken fancier.—HENRY TOBIN, in *Canadian National Magazine.*

(EDITOR'S NOTE: *We were about to state that this incident was hard to beat when Joe Fountain, the indefatigable CNR press representative in N. Y. City, sent us the news that when CNR workmen were overhauling a locomotive tender in the shops at Moncton, New Brunswick, not long ago, they found three live lobsters crawling around in the bottom of the tank from which the water had been drained. Joe probably meant to say "crawfish."*)

* * *

THEY ARE scrapping the little Due West Railroad of South Carolina, four miles long, which never in its 33 years hauled a drop of whisky (knowingly), never highballed a Sunday train, never fought a lawsuit, and never injured an employee, passenger or tramp. The sole motive power was a little Forney which once shed coals on the Manhattan Elevated, N. Y. City, weighing 25 tons and called "South Carolina's curiosity." Because there was no turntable at Donalds (where the DW linked with the Southern) the Forney had to go home to Due West in reverse.

Another clip tells me that the Seaboard has the longest straight track in the U. S. A., between Wilmington and Hamlet, N. C., 78.86 miles without a bend!—LEE HOUGHTON (author of "Link-and-Pin Days," Nov. issue), 2522 W. 4th St., Waterloo, Iowa.

(EDITOR'S NOTE: *Maybe some ambitious Railroad Camera Club member will send us a picture of that longest straight track in U. S. A. Incidentally, the world's longest is located in Australia.*)

* * *

STATIONS are my hobby, and I agree with the writer of "50,000 Passenger Stations" that most of them are gloomy. Two that were homelike stand out in my mind, though it has been 30 years since I saw them. In both, the ticket windows and notices were kept on one wall, while the other three walls were clear except for a few pictures—etchings of Canterbury Cathedral, Japanese prints, etc. The larger was that of the Central New England at Norfolk, Conn., and the smaller was the terminal of the Bristol Railway at Bristol, Vt. The rails are gone at both points now, but they have made Bristol depot a semi-bungalow.

I know of two sets of railroad crossing gates like those pictured by Joe Easley on page 55, March issue; one was at Boston Corners, N. Y., where the NYC crossed the Central New England (now abandoned here, so the gates are gone) and the other was at Voorheesville, N. Y., where the NYC crossed the D&H. These had red lanterns set in the targets and were operated by a flagman. As I have not visited my home county for 20 years, I don't know whether or not they are still in use.—WM. H. WANZER, 25 Bay View St., Burlington, Vt.

(EDITOR'S NOTE: *Crossings of somewhat similar type are to be found at Decatur, Ill., where the Wabash and Illinois Central cross, and at Montgomery, Minn., where a branch of the Milwaukee Road crosses the M&StL main line, we learn from Clarence J. Root, 1013 Federal Bldg., Detroit, and Harry R. Johnson, 618 Woodland Ave., Mankato, Minn.*)

* * *

TELL Joe Easley there are many crossing gates in U. S. A. similar to the Canadian one he pictured in March issue. And tell Wayne Leeman, the cameraman who supplied material about the *West Coast Silver Meteor* on the same page, that the Negro who rides the pilot to warn traffic is a head brakeman, not a porter. (Porters wear white coats.) Clearwater is not the only Florida town without crossing gates, and even if a town does have

crossing gates, the brakeman still must walk or run the crossing.

As a consulting horticulturist, I travel much and have often watched this train in Clearwater and elsewhere, but have yet to see the brakeman run a crossing. I understand the usual practice is for the train to come to a full stop before crossing a main city street or highway unguarded by signal lights. After it has done so, the brakeman gets out of the first baggage car (generally coupled next to the tender), runs up to the street or highway, and then casually walks to the center and flags opposing gas traffic. Then, when the engine arrives at the center, he steps onto the pilot and rides to the opposite edge of the street; drops off, and catches a step on the first coach, eventually returning to his station in the baggage car.—D. Arthur, R. 2, Box 1333, St. Petersburg, Fla.

* * *

FIFTY-ONE years as an engineer with no "brownies" against his name and no accidents—that's the record of my father-in-law, Jim Frasier, who retired from the New Haven two years ago and now lives with his daughter at Putnam, Conn. Their house is so near the Norwich Branch that crews of all passing freights give Jim a highball, and he's always out on his porch to return it.

Get *Eddie Sand* off that trolley line and back on a steam road where he belongs!—Norman Ash, Manchester Green, Conn.

(Editor's Note: *Harry Bedwell says Eddie'll be back on a steam job in his next story.*)

* * *

YOU speak of "the present run-down condition of the once famous *Erie Limited,* now pretty much of a milk train." Far from run down, the *Limited* carries such modern equipment as air-conditioned coaches, dining-lounge cars, buffet cars and Pullmans.—Richard Smith, Island Rd., Ramsey, N. J.

* * *

LOOKING over the new Illinois Central timetable, I see that passenger business has slipped. On the branch lines there ain't no such animal; even Peoria and Decatur have no IC passenger trains. There's only one nice thing about this timetable: it has a geographically correct map.—Dick Thompson, Box 274, Ypsilanti, Mich.

* * *

STRANGE old engine which points both ways *(page 72, Feb. issue)* is a Fairlie, built about 1870 by Neilson & Co. of Glasgow, Scotland. Great virtue of the Fairlie was neither her speed nor her power, but her ability to round sharp curves on mountain pikes, for she was the first (1865) successful articulated or jointed engine. About 1900 the most modern Fairlies were blowing cinders about the Mexican countryside.

Her boiler had two barrels fastened to a pair of small fire boxes under a common wrapper plate, though some early Fairlies had only one firebox at the center—a poor feature, for one smokebox might set up a violent draft and draw air through the other stack. This double-barreled boiler rested on a rigid frame which was pivoted like the Mallet articulated unit. At first the steam connections to the cylinders were loops of piping inside the smokeboxes, which coiled and uncoiled like snakes as the engine rounded a curve, but so many steam pipes burst that they had to put in ball joints. The tiny cab was draped over the firebox wrapper as in a Mother Hubbard and the engineer was separated fom his fireman. How did the eagle-eye know what was going on at the far side of the track when his fireboy was stoking?

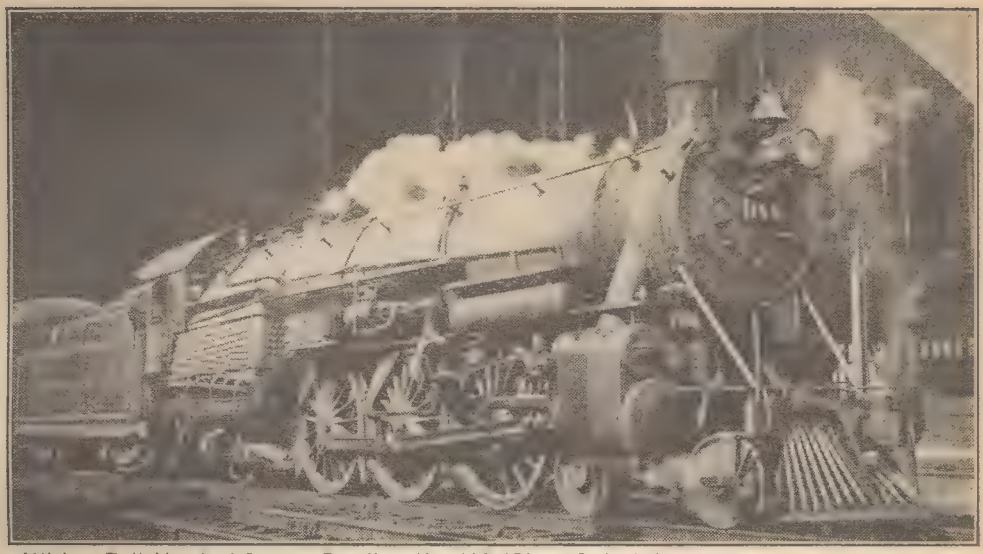
It is hard to believe your statement that two firemen were carried, for I have never heard of a Fairlie big enough for two, though on heavy South American grades they may have carried a coal passer. Firing was through the side of the firebox. The tallowpot would shovel in all the slate she would take, so he could nest up in a corner behind a newspaper. I've never talked to anyone who rode a Fairlie through a long tunnel on a four per cent grade—maybe no one has ever done it and lived to tell the tale.—Brian Fawcett (*mechanical engineer, Central Railway of Peru*), Casilla 31, Callao, Peru, South America.

* * *

TO CORRECT a recent letter, it was W. D. Corley, not Corey, who bought the Cripple Creek Short Line (Colo.) at auction in 1922 and made it over into the Corley Mountain Highway, chiefly by pulling up the rails and building a tollhouse at each end. Motorists found that driving atop the narrow fills was a ticklish maneuver, while the tunnels and trestles were strictly one-way. As guard rail and warning signs were lacking and it was some distance—as the crow falls—to the bottom, there were serious accidents. When the road reverted to the Colorado citizens it was decided, with unhappy disregard for the orginial builders, that the "trip that bankrupts the English language" would remain the Corley Mountain Highway. The CS&CCD shops and rolling stock remained for years in the Colorado Springs yards, but vandals, scrap dealers and a flood took toll until there remain only four skeletons of locomotives.—L. D. Mitchell, 350 S. Alvarado St., Los Angeles.

* * *

SHORT line notes: The Unadilla Valley (N.Y.) has bought one of the Kishacoquillas Valley (Pa.) locomotives. I hear the



With a Full Head of Steam, Reading No. 106 (Class G-1sa) Is About to Leave Her Philadelphia Terminal on an Early Morning Run. This Camera Study Won Honorable Mention for Clarence R. Weaver, 15 N. 2nd St., Sunbury, Pa., in Our 1940 Photo Salon

Delaware & Northern (N. Y.) suspended service last winter, but this may not be final. They have one of the few remaining 4-4-0's around here, now that the Southern New Jersey is no more. In Vermont the Hoosac Tunnel & Wilmington ("Hoot, Toot & Whistle") may sell their No. 5 to the Suncook Valley (N. H.) if they give up this spring; the SV needs an extra engine as they are very busy.—Ted Gay, 624 78th St., Brooklyn, N. Y.

* * *

LETTER about the term *zulu* as applied to boxcars brings to mind the winter of 1898, when I was night yardmaster for the old Vandalia line at Eppingham, Ill. In the telegraph office was a young Irish op named Foley. One night Foley handed me a bunch of consist reports, and at the top I was startled to see: "1 Zulu Memphis ICRR."

"What," I asked, "is a *zulu*?"

"That's a code word—means a car of household goods and livestock." Foley replied. As he was a joker, I took it with a grain of salt —until he showed me the word in the code manual.—Harry Jones *(retired PRR yardmaster)*, 8307 Lemon Ave., La Mesa, Calif.

* * *

WHO knows about the old Portage Railroad which used to ramble over the Allegheny Mountains? It had three or four inclined planes on the western slope above Mineral Point, Pa., each having a stationary engine at the top to drag trains up. The portage must have been discarded by the 1880's. for I lived near Plane II in '64 and the track was already gone from there. Nothing was left but the roadbed and ancient stone sleepers.—J. W. Clossin, 1111 Albany Ave., Waycross, Ga.

(Editor's Note: *There used to be an odd combination of railroads and canals called the Main Line of Public Works of Pennsylvania, extending between Philadelphia and Allegheny. Part of it was the Allegheny Portage Railroad, a line of alternate inclined planes and graded levels over the mountains between Johnstown and Hollidaysburg, Pa., 36 miles. Opened for traffic in 1834, it was regarded as one of the world's outstanding feats of engineering. Operation was discontinued Nov. 1, 1857; dismantling began in 1858. Its route now belongs to the PRR. The only surviving Allegheny Portage structure of any consequence is Staple Bend Tunnel, on Conemaugh River about 4 miles east of Johnstown, Pa., America's first railroad tunnel. If there is a sufficient reader demand for it, we will publish a short illustrated feature article on the subject.*)

* * *

MYSTERIOUS old Shay-geared engine pictured on page 125, Dec. issue, ran on the Dents Run Railroad. This pike ended at Dents Run, Pa., where it switched to the Pennsy and the B&O. Engine No. 1 decayed up in the mountains at Wilmer for years, while an old fellow named Snooks ran an open gasoline coach once a day till floods wrenched out a bridge last year. My uncle was an engineer when the pike was a logging road. The late Tom Mix, cowboy movie star, also worked there. —D. K. Johns, 510 Central St., Union, N. Y.

## Information Booth

ANY OLD rails know these brakemen of 30 years ago on the Utica Division of the DL&W? Frank Nimmons, who became sheriff at Hubbardville, N. Y., during the hop-picking rush of 1900; Ed Vidler, who was in the sawmill business about 1901, and Hub Bennitt, elected alderman of Utica's Second Ward in 1910.—G. C. GREEN (*Indiana Northern trainmaster*), 443 N. Albany Ave., Chicago.

* * *

ADDING to right-of-way graves: You can see a small plot with a picket fence along the Boston & Maine at Potter Place, N. H., enclosing the graves of Prof. Potter (a celebrated ventriloquist), his wife and child.—M. H. BENHAM, 34 Shattuck St., Nashua, N. H.

* * *

WANTED: Details on wreck of Missouri Pacific passenger train on the road's first run from St. Louis, caused by collapse of new bridge over Gasconade River near Hermann, Mo.—WENDELL H. GRIFFITH, JR., 205 Kingsville Court, Webster Groves, Mo.

* * *

DOES the Peninsula Branch of the Milwaukee go farther northwest than any other common rail carrier in the U. S. A.? It's true that the Port Angeles Western rolls almost to the Pacific, but that's strictly a logging road.—CARL A. RUOFF, JR., 536 W. 5th St., Port Angeles, Wash.

* * *

TWO COVERED bridges adorn the Burlington near Sheridan, Wyo.; both look just like Joe Easley's picture in the Feb. issue. One's on the Ft. McKenzie spur, crossing Big Goose Creek; the other is in Sheridan, spanning Little Goose Creek.—OWEN R. GOERKE, Box 932, Gillette, Wyo.

CHICAGO DAILY NEWS has added a "What Do You Know About Railroads?" column to their *Weekly Whizzer*, and it's the best thing on the page.—Mrs. LOIS M. DRUEKE, 5112 Oakton St., Skokie, Ill.

(EDITOR'S NOTE: *What other newspapers have similar railroad quiz features?)*

* * *

ORIGINAL title of the famous song *The Baggage Car Ahead* (*page 25, Feb. issue*) was *The Baggage Coach Ahead.* This ditty was written about 1896 by Gussie L. Davis, Negro Pullman porter, Cincinnati, and published by E. B. Marks, N. Y. City, who tells about it in his book, *They All Sang.*—WILBUR L. BROWN, 201 E. State St., Cheboygan, Mich.

* * *

LIKE the Winslow, Ariz., *Mail,* the Oakland *Tribune* has a picture of a Diesel streamliner on its front-page herald, proclaiming to all the world that Oakland, not San Francisco, is the western end of steel for the SP, and WP, and the Santa Fe. All three transfer passengers to ferryboats or, horrors, to busses which cross the San Francisco Bay bridge. You'll also find a picture of a Diesel train in the trademark of the Alameda *Times-Star.*—K. W. KENNEDY (*former SP ticket clerk and Santa Fe car repairman*), 1401 Barrett Ave., Richmond, Calif.

* * *

A RECENT issue of *Railroad Magazine* turned back the hands of time for me when I found in it a poem, "Double Header," which I had written almost 20 years ago. I wonder if any of my old rail pals, Otis Jarman, Roy Cluck, Artie Oglivie or Felix Johnson, are still among your readers? I'd enjoy hearing from them.—J. EUGENE CHRISMAN, 214 Denny Bldg., Walla Walla, Wash.

## The Boomer Trail

WAS MUCH pleased with S. A. Dougherty's letter in March *Spot.* Sorry his dad doesn't remember me; I was quite a character in Helper, Utah, for a while. Have a service letter proving I worked there. (EDITOR'S NOTE: *"Haywire Mac" is right. He showed it to us.*) Dougherty and his dad must have known my father-in-law, E. H. Johnson, sometimes called "Ole" or "Alphabet" Johnson, who pulled a throttle on the "Dirty, Ragged & Greasy" more than 40 years, retiring on pension in '37 and dying in '39.

At the time I worked in Helper the hogger on the goat was a man named Brooks, formerly of the C&O. As I was not in Helper for the dynamite mix-up, I naturally supposed Brooks was on the jot that night. He was a "hired" engineer; nobody else wanted the switch-engine job at that time. In fact, when Brooks laid off, while I was there, they used to give the engine to a tallowpot named Rebholtz who wasn't even holding hogger's rights on "the Grande." But Reb could handle a switcher about as well as any other man I knew, and if

we switchmen had been allowed to choose an engineer he would have been it.

Perhaps Dougherty remembers Walt Lemon, a freight conductor who went to Russia to work for the Soviet Railways about 1920. Walt died of typhus a couple of years later; his widow still draws a Soviet pension. Another character was a conductor named "Bad Order" Brown, who had the Soldier Summit tramp job out of Helper; he invariably came into town with the hog law nibbling at his heels and a "chain-up" tied to the rear end of his boxcar caboose.

Clifford Funkhouser's "Trail to Yesterday" (*March issue*) was a honey. Wonder if he remembers "Slim" Stumbaugh, Charlie Collins, Bob du Gai, or Wm. Henry Harrison ("Pigpen") Hogan, all of whom switched boxcars in the Kansas City "bottoms" and also boomed all over the West. During the panic year of 1907 I lit into K. C. and hung up with Stumbaugh long enough to get my suit cleaned and a couple of shirts laundered. Both he and Charlie Collins were working and had five hungry boomers rooming with them. Four of us slept crosswise on the bed. while the other three occupied the softest portions of the floor. The joint was steam-heated, so at least we kept warm.

Also, I wonder if Funkhouser ever wore a "Kansas City hat." It was an ordinary Fedora shape, placed on the head with the crown undented, and usually cocked at a "go-to-hell" angle. Boomers from farther East usually favored the "ounce crusher" type of lid, while a guy from West of Denver generally could be spotted by his "railroad" Stetson. The latter type also was worn with crown undented. We used to sponge them with coffee when they got looking too shabby. Just take a cup of black Java, add one spoonful of sugar, apply with small sponge or clean rag, and dry in the sun. Your hat will then be as stiff as a board and look almost like new. This goes only for black hats; nutria-colored ones can be cleaned and stiffened with sugar and plain water.

I liked the March cover picture. It's now hanging on my wall in a frame from the five-and-dime—that's because you didn't put any lettering on the picture. But why is the shack going back to flag with only one lantern? (EDITOR'S NOTE: *He must have broken the glass out of his other glim.)* Also, there are three guys "freezing that hub" on the car ahead of the crummy. Did they have a swing man on that crew, or was somebody deadheading, or was a boomer riding with them? I don't know which, but it's still a darned good picture.

By the way, the Santa Fe here is so shorthanded that they deadhead "dog-catcher" crews out in yellow taxis as far as Colton, Calif! Recently it took three crews to bring a train from Colton to L. A. yards, 125 miles. Hog law got the first two, and by the time they arrived in L. A. their rest was up. But the brass hats still won't lift the 45-year age limit which keeps men like me out.—"HAYWIRE MAC," 1018½ N. Serrano Ave., Los Angeles, Calif.

* * *

ALL OVER the West, even in such hellholes as Yuma, Needles, San Marcial, Winslow and Laramie, I find that nearly all the good jobs are held down by old heads. Boomers get only the crumbs during seasonal rushes. Now and then a new man is hired, but he's no boomer; usually he has had several years' experience on one job, lost it and luckily got another to which he clings for dear life. It's been 40 years since a boomer could get any job above the rank of brakeman, switchman or fireman, or keep it more than 90 days if he did. —CLIFFORD FUNKHOUSER, Rte. 2, Naperville, Ill.

* * *

WHAT A flood of recollections your January number brought back! Especially "Desert Memories" by LeRoy Palmer, who tells of Cochise, Ariz. When I was a boomer in 1902 I worked at Dragoon Summit, top of a hill above Cochise, where they used helper engines. Do old-timers recall the Tie House where the night operators batched? A dog and a burro were our buddies—and if you didn't get up by 3 p. m. they'd bark and bray their heads off. Cochise had one hotel, two saloons and three houses. At any saloon you saw a great display of artillery back of the bar, for an Arizona law said, "Park your gun at the first stop in town."

I moved down to Cochise with Bill Lawrence, the Southern Pacific agent that Palmer wrote about. Bill was one swell fellow. One day he vowed he would go up to Dragoon on the helper; but he came back stretched on the gangway, gasping for breath. Tuberculosis. Nobody gave him a year to live, yet Bill recovered and thrived at Bowie for many years.

Another friend was old Jim Neal, a sourdough who had fought Indians and was the smartest shot I ever saw. He had no trigger on his Colt—he "thumbed" it—and could he shoot! I suspect there should have been notches on that gun. We operators used to grubstake Jim, and one day he staked out a claim right next to the Old Terrible Mine. I was at Tucson. When I got word that Jim had sold our claim, I rushed to Benson just in time to see the last of our $1500 slide over the faro table—so I followed the Ess Pee and helped build the cutoff over Great Salt Lake.—JOHN F. SWAIN ("SQ"), Vernon, Mich.

# A Section for Juice Fans

HALIFAX Street Railway, operated by Nova Scotia Light & Power Co., is doing so well that it recently bought six additional cars and ordered half a dozen more, thus increasing the number in service from 61 to 73. All are comparatively modern Birneys, they are kept in first-class condition, and the service is frequent and regular—which may help to explain why the company is prospering with juice equipment instead of turning to "stink-busses."—ROBERT R. BROWN, 700 St. Catherine St. W., Montreal, Canada.

* * *

CAN readers tell me about the old Gallatin Valley (Mont.) Electric Ry., now integrated with the Milwaukee? Did its cars go to the Butte Electric?—FRED W. MOULDER, 2531 Amherst Ave., Butte, Mont.

* * *

STRANGEST of wrecks visited a trolley line at Ft. William, Ont., Canada, about 30 years ago. It was 2.30 a.m.. with a fog so soupy that the motorman, peering through the glass, could see nothing but the arc light on each street corner. He wanted to make good time, as his passengers were a train crew going to work on the Grand Trunk, but it was "blind flying." As he crossed Sprague St. he knew there were two more arc lights before he hit the right-angle bend at Brock and Ford, so he edged her up a notch. Abruptly the car lights went black, the wheels bumped over rough ground, there was a shattering of glass and a wrenching of wood. His face bleeding, the motorman picked himself up in pitch darkness, while a woman screamed almost in his ear.

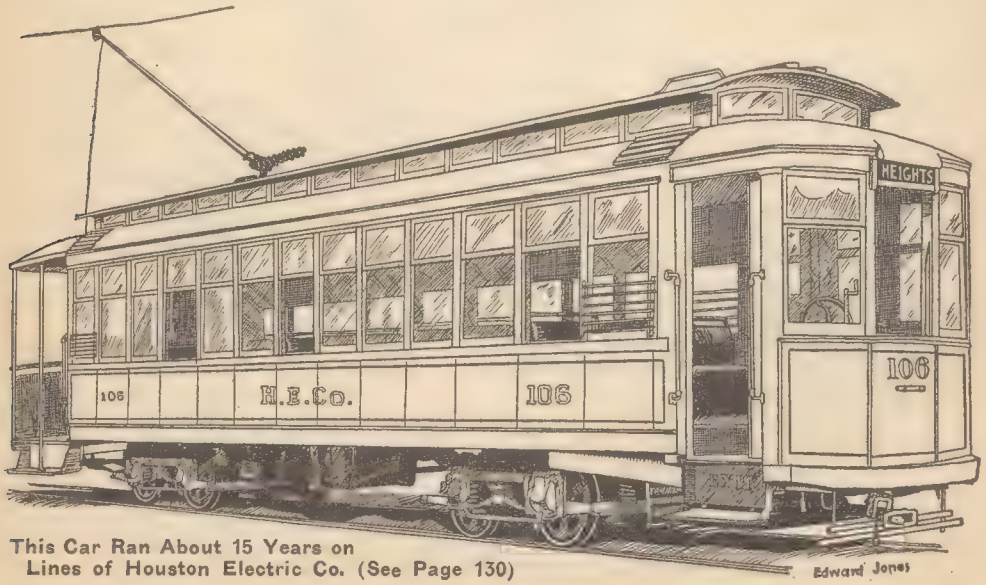
"Get out of my bedroom, you. . . !"

Motorman knew he had hit the bend sooner than expected, and too fast. He had busted through the show-window of a grocery store, barged ahead, and crashed into a rear room near a bed occupied by a housemaid, who was frantically trying to turn on an electric light which wasn't there. Cause of the miscalculation: one of the arc lights was out.—WM. H. HODGSON, Saugerties, N. Y.

* * *

WHO is the youngest street-car operator to make a graveyard run? This question was raised in a recent issue. Without claiming that honor, I submit these facts concerning the last night of street-car operation on the Lowell Division of Eastern Mass. St. Ry. Co., on Sat., Sept. 7th, 1935:

During the preceding month we'd had three lines still running: the Christian Hill and Pawtucketville, the Lakeview, and the Westford Street. The final car into the yard came from the Lakeview line at 12.35 a.m., Sept. 8th. I operated the last car on Westford St. line, pulling in at 12.15 a.m. Many souvenir hunters rode the car from Lakeview, but on my farewell run from the end of Westford St., downtown and back, I carried a group who lived near




**This Car Ran About 15 Years on Lines of Houston Electric Co.** **(See Page 130)**

Edward Jones

*Photo by Stan Styles, 1320 Downing St., Winnipeg, Canada*

**A Glimpse of the Past: Motorman-Conductor R. S. Styles Standing Proudly Beside Number 16 of the Winnipeg Electric Branch Line to Stonewall**

the end of that line. Thus, on my car the occasion was more solemn than it was aboard the trolley which was last coming into the yard.

At that time I was 23; had been employed as operator a year and five months. Incidentally, No. 4319, pictured in local newspapers as the last trolley, actually was not used on the final trip. Because of defective resistance it had to be taken off shortly after the photo was snapped. The 4337 had to be repaired on the last day of operation to make the shift. The operator who made the shift and ran the publicized "last car" to the yard was P. W. Cox. He was presumably a year younger than I, but we both had the same length of service.—JOHN B. BARR, 168 Sixth St., Lowell, Mass.

* * *

TWO SCORE years of street-car service closed here with the last run of No. 342 on the Pacific Electric's Altadena line. Prior to 1924, when the first bus rattled along, the Pasadena district had a trolley system second to none. The Altadena line was part of the old "Mt. Lowe-Mile High" route which gave up the ghost three years ago. On the very day car service came to an end they were holding a ceremony atop Echo Mountain to mark the 50th anniversary of that historic line.—ERNEST M. LEO, 561 Barry Pl., Altadena. Calif.

* * *

QUESTION is raised in the March issue of interurbans which pass under main-line steam tracks. I'm sure there have been at least 100. Here are five: Schenectady Ry. under the D&H and again under the B&M near Alplaus, N. Y.; Fonda, Johnstown & Gloversville under the B&M near Scotia, N. Y., and under the NYC main line near Hoffmans, N. Y.; and the Public Service Fast line under the PRR near Woodbridge, N.J. Abandonment has hit the last three.—JAS. T. WILSON, 138-30 Northern Blvd., Flushing, N. Y.

(EDITOR'S NOTE: *Another one is the Indiana Railroad's Indianapolis-Peru line running under Pennsy tracks at Bunker Hill, Ind., we learn from Geo. Pearce, 2523 N. Purdum St., Kokomo, Ind.)*

* * *

REGARDING picture of Key System train in underpass shown on page 140 of March issue: Sacramento Northern trains running between San Francisco and Pittsburg, Calif., also use this underpass to reach the approach to the San Francisco bay bridge. Moreover, SN trains use an underpass near West Pittsburg to pass below the main lines of the Southern Pacific and the Santa Fe. The SN underpass is shaped somewhat like the letter S, as SN tracks parallel the other two lines both before and after crossing but cross at right angles to them. No doubt there are other steam-interurban underpasses elsewhere.—DUDLEY W. THICKENS, RFD, Box 384, Walnut Creek, Calif.

* * *

INFORMATION which appears in the upper right corner of page 54, March issue, is misleading. The picture shows C&NW motorcar in service between Fond du Lac and Janesville, Wis. As one of the baggagemen-brake-

men on this run, I remember seeing E. K. Melvin take the photo from which Joe Easley's drawing was made. The side door and window at the extreme end of this car is the place where the engine formerly stood. It has been removed, making a trailer of the car. But no other change was made in the car's construction, except for removal of a few seats and a partition between the smoker-baggage compartment. The mail compartment is the same as when the car was built.—F. W. Foshay, Fond du Lac, Wis.

* * *

WANTED: Information on CNS&M electric, including predecessor roads. Is it true the promoters planned to extend it to Minneapolis and St. Paul?—Paul C. Baker, 1631 W. Chase, Chicago.

* * *

MIAMI'S late street-car system began in 1904 with storage battery cars and a short track from the Negro section to the Florida East Coast depot. Miami preferred walking to riding in the little hybrid cars, half open and half closed, so the railroad flopped. The year 1914 saw the Miami Traction Co. building out Flagler St. and up N.E. Second Ave. to Buena Vista. Even these cars ran by storage battery, too. Most of them went up in flames when the car barn burned in 1921. Next year the city bought the surviving equipment and leased it to the Miami Beach Ry., which installed overhead wires, but street-car service became a memory last year.

Let's hear about the street-car system of St. Johns, New Brunswick, Canada, where the vehicles are old-style 4-wheelers and don't have airbrakes.—Stanley Borden, Miami, Fla.

* * *

FORCED out of existence—that's what may happen to the 90-mile Peoria-Decatur branch of the Illinois Terminal System. City Council of Bloomington, Ill., has decided the juice line's tracks were a nuisance and voted to make the road build a loop around the city with a new station. For this the ITS hasn't enough cash, but it is willing to cross Bloomington via the Big Four or the Nickel Plate, despite the heavy cost of electrifying these tracks and synchronizing signals. Neither steam road is willing to share its right-of-way, however, so the ITS may have to rip up a profitable branch which supports 12 passenger trains every 24 hours.—Jas. O'Neill, 1538 Mississippi Blvd., Bettendorf, Iowa.

* * *

LAST traces of the trolleys which once clanged through Houston are fast disappearing. Overhead wires have long since gone and now the rails are being paved over. The final street-car rolled during the small hours of Sunday, June 9th, 1940 without any fanfare to herald the end of 70 years of rail transportation. First car ran three years after the Civil War, a strange contraption drawn by a mule. Electricity took the place of long-ears in 1891; the first bus loomed on the horizon in 1924.—Edward Jones, 305 E. 28th St., Houston, Texas.

* * *

BOSTON looks forward to a new subway under Huntington Ave., with two stations. Opening day must be a Monday, since there are 400 feet of track where the subway emerges which can't be laid till the surface rails are removed. After shutting down late Saturday night, a crew will have until early Monday. Though most of the 4,000 workmen were WPA, there was no "leaf-raking" on this 3-year project, which cost $7,000,000,000 and is the second largest WPA job in the country. (The largest is LaGuardia Airport, N.Y. City.) The subway lies in graceful curves in the mud of what was once the Back Bay Flats, a gigantic steel and concrete tube wrapped in a waterproof covering of cotton soaked in asphalt. Where it dives 60 feet below the B&A tracks near Trinity Station the mud was oozy; water was plentiful everywhere and pumps worked incessantly.—Robt. W. Greenwood, 116 Saratoga St., East Boston, Mass.

* * *

HIGH spots of 1940 in electric railroading: Work was pushed on Chicago's subway, while a new link in the N. Y. City Independent Subway was completed . . . The Atlantic & Shore set a precedent by placing hostesses on its interurbans to Ocean City, N. J. . . . Los Angeles planned a Metropolitan Transit District to provide a rapid transit system. . . . Cincinnati talked of a $15,000,000 program to complete its long idle subway, built in an old canal bed.

Orders for street-cars broke records since 1930; Baltimore Transit signed for 88, Boston Elevated 20, British Columbia Electric three, Capital Transit 35, Cincinnati St. Ry. 26, Kansas City Public Service 24, Pacific Electric 30, Philadelphia Transportation 130, St. Louis Public Service 100, and Toronto Transportation Commission 50.—Russell Stokes, Sewell, N. J.

* * *

REGRETFULLY I learned from your March issue that the 9th Avenue El in N. Y. City had been dismantled. (Editor's Note: *Manhattan's 2nd Avenue El is now being razed; Fulton Street El in Brooklyn, N. Y., long out of service, will go next.)* As a child it was my great delight to see the el trains move uptown in reverse and downtown in forward. I was very young when I first saw the Greenwich and 9th Avenue lines with their little boxed-in steam

locomotives. Originally they had names; later they had both names and numbers, which they bore until the line was electrified.

I watched laborers dig foundations for the N.Y. El and the Manhattan, known as the Gilbert Lines. I feel certain I was the first kid who saw Nos. 27 and 37, the first two locomotives that ran on the 3rd Ave. line. No. 27 was a saddle-tank, while 37 had the tank at the back. Locomotives of the 3rd and 9th Avenue lines were built by Baldwin and Rhode Island on a 50-50 basis. Those that ran on the 2nd and 6th Avenue lines were built by Grant; they were painted pea green, as were the cars, which had cheesebox tops. These Grant engines had diamond stacks and chugged loudly. They also rumbled very much; you could feel and hear buildings rattle as they passed on the el structure. I have a complete list of names of engines that ran on the 9th Avenue line before the other els were built.—HARRY EPSTEIN, Box 805, Picher, Okla.

* * *

YOU say the lower photo on page 70, March issue, is the 8th Street station of the 9th Avenue "El" in N. Y. City—but this Elevated never had such a station. Photo really shows the 8th Street station of the former 6th Avenue "El." And the building in the backdrop is not a "huge modern apartment house," it's a jail.—T. M. HOWARD, 304 E. 42nd St., N. Y. City.

(EDITOR'S NOTE: *A dozen other sharp-eyed New Yorkers, including Henrietta Carter's brother John, pointed out these boners. Geo. Zabriskie, NYO&W freight traffic manager, writes: "Call it a huge modern rent-free apartment house, with all meals furnished free to unwilling tenants. It's really the House of Detention for Women." And Henry W. Ruschmeyer, ERA national secretary, 152 W. 42nd St., N. Y. City, says the station was torn down well over a year ago, so the photo couldn't have been taken "a few months ago," as we stated. Our correctors are right; but for the benefit of "outsiders" we wish to say the 6th and 9th Ave. el structures were not only connected, further on uptown, but were actually merged into one, operating on the same tracks for a considerable distance.)*

* * *

SINCE no magazine is now published in its field, Jeffrey Winslow and I are seriously considering the issuance of a quarterly, to be called *Trolley Cars,* each issue to contain at least 32 pages of information, photos, scale drawings. The proposed magazine would be sold by subscription only, $1 a year in U.S.A., $1.25 Canada and foreign. It would include trolley model-making, photography, car plans, equipment rosters, fact articles, club news, fantrips, etc. Before going ahead on this proposition, we want concrete evidence from streetcar and interurban fans as to how far they are willing to go to support such a magazine.—LOUIS H. HERTZ, Box 53, Hartsdale, N. Y.

(EDITOR'S NOTE: *Mr. Hertz is known to* Railroad Magazine *readers as the author of "Tinplate Alterations" in our July '40 issue. He owns what is said to be the world's largest private collection of historical railroad tinplate equipment. Is editor and publisher of* Model Railroaders' Digest.)

*Photo by Herbert Rosenfeld, 2054 Harrison Ave., Bronx, N. Y.*

**Baltimore Transit Co. Green Cars Enroute to Baltimore, Md.—Photographed in the Communipaw, N. J., Yards of the Jersey Central Last January 5th**

One of the North Shore Line's New Red and Green Electroliners, Now Operating Between Chicago's Loop District and Downtown Milwaukee. These Double-enders Head a Fleet of Thirty-eight Daily Trains

# New Mile-a-Minuters

By DONALD M. STEFFEE

ANY annual speed survey compiled for release in our January issue must necessarily omit changes in winter schedules to the Southland. Mindful of this, it has been our policy to note such runs in a supplementary listing. The first three months of this year, however, have witnessed so many drastic developments in the field of mile-a-minuting that we deem them worthy of special attention—the more so since the future status of high-speed passenger train service will depend, to an unpredictable degree, upon developments in the line of national defense.

The items included in this month's tabulation are in no way intended to bring the survey up to date. Several new speedsters are not represented, other runs have been readjusted, and still a third group no longer makes the grade. We are concerned, rather, with the more important changes, and the newest highlights of the transportation picture, so to speak.

First, it will be noted that while there are virtually no alterations in the schedules of the fastest Pullman and all-coach trains of the Atlantic Coast Line, the Florida East Coast, and the Seaboard Air Line, the first named road does list a tremendous increase in speed mileage, resulting from unprecedented travel to Florida vacation points, which has greatly expanded the volume of rail traffic. Our tabulation indicates no less than 3102 high speed ACL miles, or an increase of 1300 miles over last year. Broken down into 18 steam runs aggregating 1644 miles, and 12 Diesel runs totaling 1458 miles, this record is largely brought about by the speeding up of the *Vacationer,* and adjusted schedule under which the *Champion,* unrepresented last winter, now turns in several good runs, and the expansion of the famous *Florida Special* into a whole fleet of trains serving both Coasts of the state from which it takes its name.

A peculiar aspect of the Coast Line's figures is the preponderance of steam runs in the higher speed ranges, in contrast to Diesel supremacy on our western carriers. The explanation is to be found in the fact that a steady stream of ACL trains, many of them operating in two or more sections, are being operated at certain hours of the day, so that both types of motive power are being employed indiscriminately, as operating conditions require. Thus, Diesel flyers may be sandwiched between those hauled by steam, and not have whole divisions to themselves, as is frequently the case in the west. Too, given the same time over a division, a steam locomotive must make certain operating stops which necessitate faster net running times than would be required with a Diesel.

While on the subject of Florida service, it must be pointed out that for the first time, the exploits of Chicago-Miami trains outshine those of the east. So much has already been written of the *City of Miami,* the *Dixie Flagler* and the *South Wind,* operating 29½-hour schedules

over varying routes on successive days, that little need be added here, other than to call attention to the Georgia Railway's entrance into the ranks of the mile-a-minuters. Once famed as the fastest railroad in the south, we are pleased to call attention to its fine handling of the *City of Miami.*

Electric traction which in 1940 appeared to be slipping, has reasserted itself with the introduction of the Chicago, North Shore & Milwaukee's *Electroliners,* or "trains of tomorrow," marking another step in a gallant comeback. These green-and-red sophisticates, with their 85-mile cruising speed, make five round-trips between Chicago and Milwaukee, daily, reducing the running time and boosting the road's 60-mile-per-hour and better listing to 2035 miles, and 122 separate runs. From the standpoint of trackage operated, this 136-mile juice pike is unquestionably the world's fastest railroad.

For once, all remains quiet on the Chicago-Twin Cities front. But a new conflict has burst into full fury in another sector; namely, between Chicago and Omaha. Here, the Milwaukee Road has launched the *Midwest Hiawatha* on an eight-hour schedule between terminals, the fastest daylight service ever offered. Some remarkable performances are turned in by this newest member of the *Hiawatha* family, and it contributes a large share of the Milwaukee's new world's record of seven steam runs, all scheduled at speeds of better than 75 miles per hour.

Quickly meeting this challenge, the Burlington Route revamped the time of the *Exposition Flyer,* westbound, and introduced the *Ak-sar-ben Zephyr* on a similarly timed eastbound run. An awkward situation was created by a three-hour layover at Lincoln, Neb., en route to the Pacific coast. This was overcome by running an *Advance Flyer* on an eight-hour schedule to Omaha, thence on to Lincoln, with a convenient evening arrival. Following as a second section of this train to Ottumwa, Ia., the true *Exposition Flyer* now relinquishes coast-bound cars at that point for advancement by slower trains to Lincoln. There, they again become the *Exposition Flyer,* having served a number of important west-Iowa towns in transit, and eliminated the irksome layover.

As if this were not enough, nearly three hours has been clipped from the time of the eastbound *Exposition Flyer* from the coast, abolishing another long delay at Denver, and providing nine and three-quarter hour overnight service from Omaha to Chicago. This move brought the Chicago & North Western into the fray and the eastbound *Corn King Limited* has been speeded up to meet the Burlington's time.

While the Chicago, Rock Island & Pacific has so far remained out of the Omaha melee, it has joined with the Burlington in a long over-due improvement, inaugurating overnight Zephyr-Rocket service over a joint route between St. Louis and the Twin Cities. Still another Rocket, the *Choctaw,* now links Memphis and Amarillo, filling one more blank area on the speed map. It is a pity that the fine *Arizona Limited,* Diesel-powered winter luxury train between Chicago and Tucson-Phoenix, is soon to be pulled off. Nothing would restore the prestige of the "Golden State Route" so completely as to extend the run of this train to the West Coast, approximating the time of the Santa Fe's *Chief,* whose service it would decidedly compliment, and not overlap.

## HIGHLIGHTS OF THE 1940-41 WINTER SPEED-UP

| | Train | From | To | Miles | Time (min.) | Speed (mph.) |
|---|---|---|---|---|---|---|
| | **Atchison, Topeka & Santa Fe** | | | | | |
| 10 | Centennial State | Lamar | Syracuse | 48.4 | 43 | 67.5 |
| 24 | Grand Canyon Limited | Ludlow | Amboy | 29.4 | 27 | 65.3 |
| 10 | Centennial State | Las Animas | Lamar | 33.7 | 31 | 65.2 |
| 19 | Chief | Dodge City | Syracuse | 101.4 | 95 | 64.0 |
| 9 | Centennial State | Syracuse | Lamar | 48.4 | 47 | 61.7 |
| 9 | Centennial State | Hutchinson | Dodge City | 120.2 | 117 | 61.6 |
| 9 | Centennial State | Lamar | Las Animas | 33.7 | 33 | 61.3 |
| 24 | Grand Canyon Limited | Daggett | Ludlow | 44.2 | 44 | 60.3 |
| 10 | Centennial State | Pueblo | Rocky Ford | 53.2 | 53 | 60.2 |
| | *(All steam operated)* | | | | | |
| | **Atlantic Coast Line** | | | | | |
| 71 | Miamian | Wilson | Milan | 72.2 | 65 | 66.7 |
| 71 | Miamian | Fayetteville | Florence | 83.0 | 77 | 64.7 |

**Interiors of Electroliner Luxury Coaches Are Tastefully Finished and, Thanks to Heavy Insulation and Double Glazed Windows, Practically Sound-proof. A Thirty Candle-power Ceiling Light Is Directed at Each Seat**

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | Champion | Florence | Fayetteville | 83.0 | 78 | 63.8 |
| 188 | Florida Special (EC) | Florence | Milan | 84.7 | 80 | 63.5 |
| 71 | Miamian | Richmond | Rocky Mount | 124.1 | 118 | 63.4 |
| 71 | Miamian | Florence | No. Charleston | 95.0 | 90 | 63.3 |
| 79 | Vacationer | Fayetteville | Florence | 83.0 | 79 | 63.1 |
| 287 | Florida Special (WC) | Wilson | Milan | 72.2 | 69 | 62.8 |
| 72 | Miamian | Florence | Fayetteville | 83.0 | 80 | 62.3 |
| 187 | Florida Special (EC) | Florence | Bennett | 96.3 | 93 | 62.1 |
| 87 | Florida Special (EC) | So. Rocky Mount | Florence | 172.3 | 167 | 61.9 |
| 288 | Florida Special (WC) | Milan | Wilson | 72.2 | 70 | 61.9 |
| 1 | Champion | Florence | No. Charleston | 95.0 | 92 | 61.9 |
| 187 | Florida Special (EC) | S. Rocky Mount | Milan | 87.6 | 85 | 61.7 |
| 72–287 | Miamian-Fla. Special (WC)† | No. Charleston† | Florence† | 95.0 | 93 | 61.3 |
| 70 | Vacationer | Florence | So. Rocky Mount | 172.3 | 170 | 60.8 |
| 187 | Florida Special (EC) | Milan | Florence | 84.7 | 84 | 60.5 |
| 1 | Champion | So. Rocky Mount | Florence | 172.3 | 171 | 60.4 |
| 188 | Florida Special (EC) | Bennett | Florence | 96.3 | 96 | 60.2 |
| 288 | Florida Special (WC) | Ridgeland | Bennett | 69.2 | 69 | 60.2 |
| 1 | Champion | Savannah | Nahunta | 85.1 | 85 | 60.1 |
| 72–188 | Miamian-Fla. Special (EC) | No. Tower | Bennett | 104.1 | 104 | 60.1 |
| | 5 trains | Richmond† | So. Rocky Mount† | 125.1 | 125 | 60.0 |
| 2 | Champion | No. Charleston | Florence | 95.0 | 95 | 60.0 |

*(Nos. 1, 2, 70, 79, 87 and 88 are Diesel-powered trains)*

### Central of Georgia

| | | | | | | |
|---|---|---|---|---|---|---|
| 53 | City of Miami | Albany | Americus | 35.8 | 35 | 61.3 |

*(Diesel-powered. Operates every 3rd day)*

### Chicago & Eastern Illinois

| | | | | | | |
|---|---|---|---|---|---|---|
| 98 | Dixie Flagler | Danville | Englewood | 116.6 | 110 | 63.6 |
| 99 | Dixie Flagler | Englewood | Danville | 116.6 | 113 | 61.9 |
| 98–99 | Dixie Flagler | Terre Haute† | Vincennes† | 57.2 | 56 | 61.2 |
| 91 | Dixieland | Englewood | Danville | 116.6 | 115 | 60.8 |

*(Nos. 98 and 99 operate every third day)*

## Chicago & North Western

| | | | | | | |
|---|---|---|---|---|---|---|
| 22 | Corn King Limited | Missouri Valley | Carroll | 71.4 | 68 | 63.0 |
| 22 | Corn King Limited | Cedar Rapids | Clinton | 81.3 | 80 | 61.0 |

## Chicago, Burlington & Quincy

| | | | | | | |
|---|---|---|---|---|---|---|
| 39 | Exposition Flyer | Chicago | Kewanee | 131.0 | 108 | 72.9 |
| 12 | Ak-Sar-Ben Zephyr | Kewanee | Aurora | 93.2 | 80 | 69.8 |
| 12 | Ak-Sar-Ben Zephyr | Creston | Chariton | 58.6 | 52 | 67.6 |
| 12 | Ak-Sar-Ben Zephyr | Red Oak | Creston | 49.5 | 44 | 67.5 |
| | 3 trains | Kewanee† | Galesburg† | 31.3 | 28 | 67.1 |
| 15 | Zephyr Rocket | St. Louis (Wash. Ave.) | Elsberry | 65.8 | 59 | 66.9 |
| 39 | Exposition Flyer | Burlington | Ottumwa | 74.2 | 68 | 65.5 |
| 2 | Missouri Flyer | Denver | Fort Morgan | 78.0 | 72 | 65.0 |
| 12 | Ak-Sar-Ben Zephyr | Fairfield | Burlington | 49.8 | 47 | 63.6 |
| 12 | Ak-Sar-Ben Zephyr | Council Bluffs | Red Oak | 49.7 | 47 | 63.5 |
| 15 | Zephyr-Rocket | Elsberry | Clarksville | 15.8 | 15 | 63.2 |
| 39 | Advance Flyer | Ottumwa | Creston | 113.3 | 108 | 62.9 |
| 12 | Ak-Sar-Ben Zephyr | Lincoln | Omaha | 54.8 | 53 | 62.1 |
| 39 | Exposition Flyer | Lincoln | Hastings | 96.5 | 94 | 61.6 |
| 12 | Ak-Sar-Ben Zephyr | Burlington | Galesburg | 43.1 | 42 | 61.6 |
| 40 | Exposition Flyer | Council Bluffs | Creston | 99.2 | 98 | 60.7 |
| 40 | Exposition Flyer | Hastings | Fairmont | 43.2 | 43 | 60.3 |

*(Nos. 2 and 12 are steam trains; 39 and 40 are Diesel)*

## Chicago, Milwaukee, St. Paul & Pacific

| | | | | | | |
|---|---|---|---|---|---|---|
| 103 | Midwest Hiawatha | Perry Yard | Manilla | 60.3 | 47 | 77.0 |
| 103 | Midwest Hiawatha | Elgin | Davis Jct. | 43.4 | 34 | 76.6 |
| 100 | Afternoon Hiawatha | La Crosse | New Lisbon | 59.8 | 47 | 76.4 |
| 102 | Midwest Hiawatha | Manilla | Perry Yard | 60.3 | 49 | 73.8 |
| 102 | Midwest Hiawatha | Davis Jct. | Elgin | 43.4 | 36 | 72.3 |
| 103 | Midwest Hiawatha | Marion | Madrid | 119.5 | 101 | 71.0 |
| 102 | Midwest Hiawatha | Madrid | Marion | 119.5 | 102 | 70.3 |
| 102–103 | Midwest Hiawatha | Marion† | Savanna† | 89.3 | 80 | 66.9 |
| 103 | Midwest Hiawatha | Davis Jct. | Savanna | 58.1 | 54 | 64.6 |
| 102 | Midwest Hiawatha | Council Bluffs | Manilla | 60.4 | 58 | 62.5 |
| 102 | Midwest Hiawatha | Savanna | Davis Jct. | 58.1 | 56 | 62.3 |

*(No. 100 on revised schedule. This run listed as 49 min. in January Survey)*

## Chicago, North Shore & Milwaukee

| | | | | | | |
|---|---|---|---|---|---|---|
| | 5 Electroliners | Racine | Harrison | 20.1 | 17 | 70.9 |
| 806 | Electroliner | No. Chicago Jct. | Niles Center | 21.0 | 18 | 70.0 |
| 809 | Electroliner§ | Howard St. | Harrison | 74.1 | 65 | 68.4 |
| 802 | Electroliner | No. Chicago Jct. | Howard St. | 26.0 | 23 | 67.8 |
| 800 | Electroliner | Kenosha | Howard St. | 44.0 | 39 | 67.7 |
| | 5 Electroliners | Harrison | Racine | 20.1 | 18 | 67.0 |
| 807 | Electroliner | Harrison | Kenosha | 44.0 | 44 | 66.0 |
| 802–803 | Electroliners | Zion† | Kenosha† | 8.7 | 8 | 65.3 |
| | 6 Electroliners | Howard St.† | No. Chicago Jct.† | 26.0 | 24 | 65.0 |
| | 6 Electroliners | Waukegan† | Kenosha† | 15.0 | 14 | 64.3 |
| 803 | Electroliner | Waukegan | Zion | 6.3 | 6 | 63.4 |
| | 10 Electroliners | Racine† | Kenosha† | 10.0 | 10 | 60.0 |

## Chicago, Rock Island & Pacific

| | | | | | | |
|---|---|---|---|---|---|---|
| 30 | Arizona Limited | Moline | La Salle | 79.9 | 73 | 65.7 |
| 29 | Arizona Limited | Joliet | Ottawa | 44.3 | 41 | 64.8 |
| 30 | Arizona Limited | Dalhart | Liberal | 111.2 | 108 | 61.8 |
| 30 | Arizona Limited | Ottawa | Joliet | 44.3 | 43 | 61.8 |
| 51 | Choctaw Rocket | Brinkley | Little Rock | 63.7 | 62 | 61.7 |

*(All trains are Diesel-powered. Nos. 29 and 30 operate every other day)*

## Florida East Coast

| | | | | | | |
|---|---|---|---|---|---|---|
| 70 | Vacationer | Cocoa-Rockledge | Titusville | 19.1 | 16 | 71.6 |
| 2–4 | Champion-Streamliner* | Cocoa-Rockledge | Titusville | 19.1 | 17 | 67.4 |
| 1 | Champion | St. Augustine | Bunnell | 30.5 | 27 | 66.8 |
| 3 | Streamliner* | St. Augustine | Bunnell | 30.5 | 28 | 65.4 |
| 70–79 | Vacationer | Cocoa-Rockledge | Eau Galle | 16.3 | 15 | 65.2 |
| | 4 trains | Boca Raton | Pompano | 8.6 | 8 | 64.5 |
| 79 | Vacationer | St. Augustine | Daytona Beach | 53.7 | 50 | 64.4 |
| | 3 trains | Titusville | Cocoa-Rockledge | 10.1 | 18 | 63.7 |
| 2–4 | Champion-Streamliner* | Daytona Beach | Bunnell | 23.2 | 22 | 63.6 |
| 2 | Champion | Bunnell | St. Augustine | 30.5 | 29 | 63.1 |
| 2–4 | Champion-Streamliner* | Vero Beach | Melbourne | 33.6 | 32 | 63.0 |
| 1 | Champion | Jacksonville | St. Augustine | 36.7 | 35 | 62.9 |
| 2–4 | Champion-Streamliner* | Melbourne | Cocoa-Rockledge | 20.7 | 20 | 62.1 |
| | 3 trains | Stuart | Hobe Sound | 13.3 | 13 | 61.5 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 3–79 | Streamliner*-Vacationer | Jacksonville | St. Augustine | 36.7 | 36 | 612. |
| 2–70 | Champion-Vacationer | West Palm Beach | Hobe Sound | 24.3 | 24 | 60.8 |
| 35 | Royal Poinciana | Titusville | Cocoa-Rockledge | 19.1 | 19 | 60.3 |

*(No. 35 is steam-powered. All others are Diesel-powered)*

## Illinois Central

| | | | | | | |
|---|---|---|---|---|---|---|
| 52 | City of Miami | Haleyville | Corinth | 78.5 | 73 | 64.5 |
| 7 | Floridan | Champaign | Mattoon | 44.6 | 43 | 62.2 |
| 53 | City of Miami | Centralia | Carbondale | 55.7 | 54 | 61.9 |
| 53 | City of Miami | Woodlawn | Kankakee | 48.0 | 47 | 61.2 |
| 8 | Floridan | Mattoon | Champaign | 44.6 | 44 | 60.8 |
| 8 | Floridan | Centralia | Effingham | 53.0 | 53 | 60.0 |
| 52–53 | City of Miami | Centralia† | Effingham† | 53.0 | 53 | 60.0 |
| 52–53 | City of Miami | Effingham† | Mattoon† | 27.0 | 27 | 60.0 |

*(Nos. 7 and 8 are steam-powered. Nos. 52 and 53 are Diesel-powered and run every third day)*

## Pennsylvania

**(Through trains for Florida points)**

| | | | | | | |
|---|---|---|---|---|---|---|
| 140 | Florida Special | Baltimore | Wilmington | 68.4 | 60 | 68.4 |
| | 4 trains | Baltimore | Wilmington | 68.4 | 61 | 67.3 |
| 130 | Orange Blossom Special | Trenton | Newark | 48.1 | 43 | 67.0 |
| | 6 trains | Baltimore | Wilmington | 68.4 | 62 | 66.2 |
| 119–155 | Florida Special; Silver Meteor | Wilmington | Baltimore | 68.4 | 64 | 64.2 |
| 105–117 | Champion; Orange Blossom Special | Newark | Trenton | 48.1 | 45 | 64.1 |
| 146 | Miamian | Baltimore | Wilmington | 68.4 | 65 | 63.2 |
| 125 | Vacationer | Newark | Trenton | 48.1 | 46 | 62.8 |
| 126–136 | Vacationer–Fla. Special | No. Philadelphia | Trenton | 27.9 | 27 | 62.0 |
| | 3 trains | Newark | Trenton | 48.1 | 47 | 61.3 |
| 309 | South Wind | Englewood(o) | Indianapolis(o) | 192.3 | 189 | 61.1 |
| 140 | Florida Special | Washington | Baltimore | 40.1 | 40 | 60.2 |
| 140–146 | Florida Special-Miamian | Trenton | Newark | 48.1 | 48 | 60.1 |
| 308 | South Wind | Indianapolis(o) | Englewood(o) | 192.3 | 192 | 60.1 |
| 193 | Advance Florida Special | Philadelphia | Washington | 134.2 | 134 | 60.1 |

*(All are electric trains except Nos. 308 and 309, which are steam-powered)*

## Seaboard Air Line

| | | | | | | |
|---|---|---|---|---|---|---|
| 44 | Silver Meteor | W. Palm Beach | Sebring | 102.6 | 86 | 71.6 |
| 43 | Silver Meteor | Jacksonville | Ocala | 101.1 | 88 | 68.9 |
| 43 | Silver Meteor | Wildwood | Winter Haven | 65.4 | 58 | 67.7 |
| 44 | Silver Meteor | Sebring‡ | Winter Haven‡ | 40.4 | 36 | 67.3 |
| 8 | Orange Blossom Sp'l. (EC) | Baldwin | Thalmann | 75.0 | 67 | 67.1 |
| 7 | Orange Blossom Sp'l. (EC) | Wildwood‡ | Avon Park‡ | 96.7 | 87 | 66.7 |
| 8–43 | Orange Blossom Sp'l.; Silver Meteor | W. Palm Beach† | Sebring† | 102.6 | 94 | 65.5 |
| 43 | Silver Meteor | Savannah | Thalmann | 66.4 | 61 | 65.3 |
| 44 | Silver Meteor | Wildwood | Ocala | 26.1 | 24 | 65.3 |
| 7 | Orange Blossom Sp'l. (EC) | Sebring | W. Palm Beach | 102.6 | 95 | 64.8 |
| 307 | Orange Blossom Sp'l. (WC) | Jacksonville | Ocala | 101.1 | 94 | 64.5 |
| 44 | Silver Meteor | Jacksonville | Thalmann | 71.0 | 66 | 64.5 |
| 8 | Orange Blossom Sp'l. (EC) | Thalmann | Orange Tower | 65.4 | 62 | 63.3 |
| 44 | Silver Meteor | Ocala | Jacksonville | 101.1 | 96 | 63.2 |
| 307 | Orange Blossom Sp'l. (WC) | Savannah | Thalmann | 66.4 | 64 | 62.3 |
| 308 | Orange Blossom Sp'l. (WC) | Ocala | Jacksonville | 101.1 | 99 | 61.3 |
| 192 | New York-Florida Ltd | Garnett | Estill | 10.2 | 10 | 61.2 |
| 7–8 | Orange Blossom Sp'l. (EC) | Baldwin† | Wildwood† | 108.7 | 107 | 61.1 |
| 7 | Orange Blossom Sp'l. (EC) | Orange Tower | Thalmann | 65.4 | 65 | 60.4 |
| 308 | Orange Blossom Sp'l. (WC) | Wildwood | Ocala | 26.1 | 26 | 60.2 |
| 807 | Southern States Sp'l. | Sherman | Indiantown | 22.0 | 22 | 60.0 |
| | 3 trains | Lake Worth | Delray Beach | 11.0 | 11 | 60.0 |
| 44 | Silver Meteor | Fort Lauderdale | Deerfield | 14.0 | 14 | 60.0 |

*(All trains Diesel except Nos. 192 and 807, which are steam-powered)*

*NOTES: (EC) East Coast section. (WC) West Coast section. †Runs listed in both directions. §Sunday only. *City of Miami, Dixie Flagler and South Wind operate on same schedule on successive days. (o) Includes intermediate operating stop ‡ Indicates intermediate conditional stop*

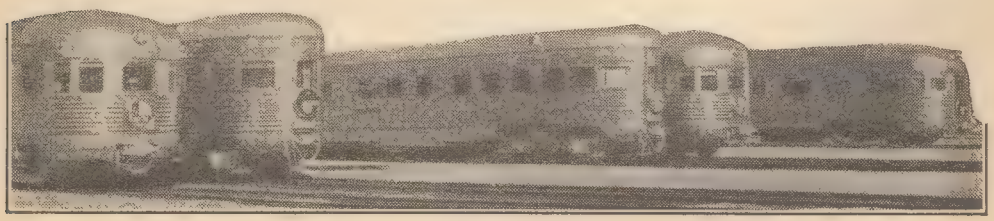


*Photo by R. P. Middlebrook, 2744 Columbia St., San Diego, Calif.*

**San Diego & South Eastern Railway Mail-Combine, Built in the Company's Shops at National City, Calif. When the Road Closed, Its Cars Were Sold to the Pacific Electric, Renumbered in the 400 Series, and Used Between San Bernardino and San Diego**

# Railroad Camera Club

FREQUENTLY we get letters from R.C.C. members eager to donate photos to this department, asking what kinds would be most acceptable. Here is the answer: We receive more than enough *ordinary* pictures of engines, trains, cars, etc. In fact, we are always swamped with them. But we do need unusual photos, uncommon subjects, dramatic shots, rare views, and prints with that elusive "pictorial quality" which distinguishes good photocraft from mediocre.

Or put it this way: A mere photo doesn't mean very much. But a camera study that interprets something or tells a story or symbolizes a phase of railroading is highly desired for publication. Pictures of the latter type may be obtained by careful choice of subject or by unusual treatment of material so as to emphasize a certain point.

Photos intended for the pages of *Railroad Magazine* may be any size (except miniature) and must show details very distinctly, in sharp focus. They should be vivid and contrasty. If details are blurred or fuzzy, if they are buried in shadow, if they are partly obscured by gray monotone, or if essential elements of a scene are cut off or covered by posts, automobiles, junk piles, etc., you can bet a dollar to a dime that such a photo would not reproduce well.

Bear in mind that some of the clarity of a photo is sacrificed in the engraving process, and there is further loss when the metal cut is run through high speed presses that print the magazine; so it is doubly important to provide exceptionally clear glossy shots to begin with—photos that are strong enough to stand a little loss without being seriously weakened.

It is mechanically impossible to make good magazine reproductions from pictures that are out of focus, a dull gray, black with shadows, light-struck, badly centered, tiny, faded, or "muddy" in tone. When such offerings are sent to us, there is nothing we can do except mail them back as graciously as possible. In a very few cases, when we get a rare, interesting photo that is faded with age, we have an artist copy it.

A question often asked is: "Do you return photos?" The reply is: *Yes, if a request is made at the time the picture is submitted.* Not only that, but we send them back in as good condition as received. When no advance request is made for return of a picture, provided the said picture is usable, we retain it in our files for publication if and when needed.

We offer these tips to our friends who donate photos to *Railroad Magazine:* (1) Protect your print with cardboard when sending it by mail and (2) put your name, address, and other useful information on the back of each picture or on a paper attached to it. Occasionally photos are damaged, lost, or wrongly captioned through the failure of contributors to take these precautions.

* * *

INGRATITUDE is not rare among picture fans. Again and again we hear of fellows who ask for, and accept, prints from private collectors or from other sources, without even a "thank-you." Amateur cameramen go to trouble and expense to dig up numerous free copies of this or that photo in answer to requests, but recipients fail to acknowledge the favor, much less express appreciation. Which reminds us of the old saying: "Some people are born great, some

achieve greatness, and others have greatness thrust upon them—but mighty few are grateful."

* * *

FREE listing in this department is subject to a few simple conditions:

(1) Submit your item on a separate sheet or card containing your name and address. Don't bury it in a long letter. Write plainly.

(2) Briefly include all essential details. Some entries are too vague to get good results.

(3) *Redball* handling is given to items received in our office the first ten days of every month, especially if accompanied by Reader's Choice coupon (clipped from page 143 or homemade). All other entries are run as *drag freight*, depending upon date of going to press and amount of space available.

(4) Use these abbreviations: *Pix*, photos; *cond.*, condition; *ea.*, each; *elec.*, electric; *env.*, envelope; *eqpmt.*, equipment; *esp.*, especially; *incl.*, including; *info.*, information; *mag.*, magazine; *n-g.*, narrow-gage; *negs.*, negatives; *p. c.*, postcard; *pref.*, preferably; *tr.* train.

And these photo sizes: Size 127—1⅝x2½ inches; Size 117—2¼x2¼; Size 130—2⅞x4⅞; Size 118 or 124—3¼x4¼; Size 122 or pc.—3¼x5½; Size 116—2½x4¼; Size 616 same as 116, on thin spool; Size 120—2¼x3¼ inches.

The term "tts." always refers to public timetables, unless preceded by "emp.", in which case it means employes' or operating timetables.

## The Switch List

JIM ADY, 333 Ximeno Ave., Long Beach, Calif., buys SP, UP, and Santa Fe emp. tts. and rulebooks. Send lists.

ARTHUR ALSTADT, 4121 N. Long Ave., Chicago, wants pix of C&EI Nos. 2000, 3635, 935, 888, 1950, 1906, 898, 944, 937. Offers 15c for ea. Also wants to hear from C&EI, FEC and NC&StL fans. *(Editor's note: Our mind-reading expert says Arthur wants any size pix, provided they're good.)*

W. A. VAN ALSTINE, c/o Railway Express Agency, Syracuse, N. Y., will pay any prices in reason for May '32 *Railroad Magazine*, also all issues before 1919.

W. A. ANDERSON, 3644 S. W. 22nd Ter., Miami, Fla., selling 400 negs., 5x7 copies of diamond, balloon and cap-stack locos, all U. S. lines, esp. NYC, New Haven, Pennsy, B&O, B&M, DL&W, IC, Milw, UP, CP, SP, MoP, L&N and ACL, many small roads, all 50c ea. Send stamp for list.

FRANK ARNOTT, 36 Boustead Ave., Toronto, Canada, buys good negs. and pix, size 116, 118, 130 and p.c., of action, close-ups and other good rr. scenes on CP, CN, D&RGW, UP, Santa Fe, SP, C&NW, MKT, FEC, ACL, C&IM, MoP, GTW also roads under 300 miles. Trades list and sample of his 116 prints for yours.

F. E. ARDREY, Jr., Aiken, S. C., will buy *Off. Guide* containing winter schedules of 1924 or '25 State price first.

* * *

J. L. BACHARACH, 3420 83rd St., Jackson Heights, N. Y., has many old defunct rr. securities, some showing engine pictures, mostly with $25 face value. Send block of four 3c stamps for each coupon.

GEO. BASCH, 64 Autumn Ave., Brooklyn, N. Y., sells ¾ views, size 616, LIRR std. type MU car 1619; caboose 48; rt.-of-way with steam loco showing; Bklyn.-Queens Trans. trolley 2753; all 10c ea., 3 for 25c. Also Pennsy, LIRR, and NYC pub. tts., 3 for 10c, one of each road. No trades.

H. R. BATES, 31 S. Hawk St., Albany, N. Y., wants *Off. Guide* 1896-7, 1900-3, 1914-17. Also, *Pocket Off. Guide* last quarter 1940.

CLARENCE BECHTEL, 685 W. Franklin St., Slatington, Pa., selling for best offer old switch keys from P&R, CNE&W, PP&B, NYLE&W, NYO&W, NYL&W and Erie. Also rulebooks CNJ May '89, P&R May '92 and NYL&W Jan. '91; and P&R supt. off. circular 1, Reading, Pa., May 15, '93.

R. E. BEDFORD, 205 Prindle Ave., Johnstown, N. Y., offers free list of steam and elec. pix, size 616, Many 5x7 pix, 10c ea.

GEO. BERGES, R.F.D. 1, Eldora, Ia., selling *Railroad Man's Magazine* issues Oct.-Dec. 1912; Jan.-Nov. '13; all '14 but June, July, Oct.; '15 complete; all '16 but Feb., June; '17 comp.; Jan.-Oct. '18. Best offer rec'd up to April 15th wins.

J. S. BICKEL, 422 Kelly Ave., Wilkinsburg, Pa., wants Pennsy calendars, except '38 and '39; esp. 1940. Good cond. Also '32 *Off. Guide*, any one month. Write first.

A. J. BLACK, 215 S. Cornell Ave., Albuquerque, N. M., wants pix, size 116 or 122, of Denv. & Intermtn. frt. motors and pass eqpmnt., action pix of Utah Rap. Trans. Int. in Ogden Canyon, CSS&SB frt. motors, Durango, Colo., trolleys, and Bamberger interurbans. Also 1916 *Off. Guide*.

CARL BLAUBACH, 456 W. 46th St., Los Angeles, Calif., has pix of PE, LA Ry. and San Diego Elec., size 118, to sell at 5c ea. or swap for Midwest trolley or interurban shots. Send 15c for list and sample.

GERALD O. BOOTHBY, 19 Melbourne St., Portland, Maine, has good p.c. pix of B&M, BAR, B&A, CN, CP, CV, GT, New Haven, MeC, Portland Ter., Montpelier & Wells R., Aroos Val.; Bangor, Biddeford & Saco; Portland & Sanford; Me. & Berlin, and Manchester, N. H., elec. roads. Send 6c stamps for list and sample. Old pix copied to 616 size, 25c each neg.

W. E. BUSH, 2840 Washington, Chicago, will sell 2 KCM&O (Orient) emp. mags., 75c ea.; Quannah, Acme & Pac. emp. mag. for 50c; two *BRT Journ.*, 20 yrs. old, 50c ea., and 1938 *RR. Eqpmt. Register*, 75c.

WM. E. BUTLER, 1515 Front St., San Diego, Calif., offers to sell 4900 pix and 100 negs., 450 loose pix sold in any quantity, 4518 in albums sold complete; sizes 116, 122, 5x7, 6x8, 6x10, 4x12. Also back issues of *Baldwin Locomotives* mag. and *Bulletins* of Ry. & Loco. Hist. Soc. Send 3c stamp for circular. *(Editor's note: Wm. Butler is a retired locomotive engineer and occasional writer for* Railroad Magazine.)

W. H. BUTLER, 17 Willard St., Cambridge, Mass., buys and trades any pix and tts. of Revere Bch. & Lynn. Also has 100 pix, size 120, for sale: New Haven, B&M, B&A, BRB&L and few MeC, Union Frt. and industrials.

* * *

F. S. CAMPBELL, 1619 Race St., Phila., Pa., will swap July '31 and Mar. '32 *Railroad Magazine* for May '38 and Feb. '40.

JOSEPH CHARTERS, 32 Pine Hill St., Lowell, Mass., will pay well for large pix (for framing) of UP, SP, Pennsy, Santa Fe and WP. All offers ans'd.

H. B. CHASE, Jr., 18 Beech St., Mansfield, Mass., makes all kinds rr. drawings to order, esp. New Haven, B&A, B&M locos, towers, etc. Send 3c stamped env. for list or info. State your wants. Desires NYNH&H loco roster and info. on Haiti rrs.

JAMES CHUBA, R. D. 2, Shaghticoke, N. Y., wants *Railroad Magazine* issues May '32; April, Dec. '33; June, July, Oct., Nov. '34; March, May, July '35; Jan., March, May-Sep., Dec. '36.

EARL CLARK, 2108 Howell St., Covington, Ky., offers selection of juice pix for sale on approval. Send postage for a selection. Also wants juice negs. and pix of Cinc., Lawrenceburg & Aurora.

H. W. CLAUSEN, 344 55th St., Brooklyn, N. Y., offers 5 picture scrapbooks, an album of 250 rr. photos, 3 timetable notebooks, 5 rr. bklts., *Off. Guide* April '37, 3 English rr. books, 82 pub. tts. Wants books on musical history, harmony, a violin or phonograph.

E. CLEAVER, 159 E. 21st St., Paterson, N. J., has 1905-'6 tts. of ACL, Erie, GN, DL&W, Erie Greenw'd Lake div., Lake Shore, NYC&HR, NYC,

Big 4, NPR, NP, Pennsy, Santa Fe, SAL, SP and SPSSL, to sell or trade for Erie or CNJ pix size 616. Also has few pamphlets, 1905-'6.

MYRON COBB, 250 W High St., Bellefonte, Pa., sells pix, size 116, of PRR classes B-6sb, G-5s, GG-1, H-3, H-9, I-1, K-4, M-1 and S-1. Send dime for sample and list. Swaps for 116 or larger pix of old DL&W, D&H, Kishocoquillas Val. and W&NB.

CHAUNCEY COOKE, 343 E. 19th St., Minneapolis, Minn., has few tr. orders and monthly inspec. form cards (gas-elec., Diesel, steam) which he'll send free to fan club officers enclosing stamped envs.

NORMAN CORNESS, 11738 124th St., Edmonton, Alta., Canada, trades Edmonton trolley transfers and pix, size 130, for U. S. transfers and trolley pix, size 116 or 130. Has few No. Alta. engines to swap for powerful U. S. locos.

OTHO COVERT, Fisher, Ill., buys any size pix of IC engines 288, 298, 409, 415, 422, 438, 467, 468, 486, 490, 496, 504, 1117, 1127, 1801, 1839, 1895, 1899, 4907, 4910, 4911, 4913, 4914, 4917, 4920, 4922, 4937 and 4942, all scrapped old-timers.

STANLEY CREWS, 231 Locust St., Lawrenceburg, Tenn., sells engine pix, size 116, of 39 eastern and southern roads, large, small and industrial, 6c ea. List and sample, 10c. Few negs., 15c ea. Sells N. Y. City trolley transfers. Will buy or trade for late '40 *Off. Guide*. Wants to borrow 16 mm. tr. and trolley movies.

E. D. CUSHING, 109 Smithfield Rd., North Providence, R. I., has telegrams dated around 1910 to trade for trolley pix or negs. Swaps transfers, tokens, passes.

* * *

CHARLES DAVIS, 3696 Townley Rd., Shaker Heights, O., wants good sharp steam loco photos of MoP, WP and Wheeling & Lake Erie.

R. E. DAVIS, 15 E. Corydon St., Bradford, Pa., wants info. and pays for photos on West Va. Midland; New Berlin & Winfield, and Zanesville & Western n.-g. roads.

R. W. DENNO, 17 Cascade Ave., Lowell, Mass., collects N. Eng. trolley transfers, tickets, etc., and all steam and elec. rr. cap badges. Sells cap badges, emp. and pub. tts., tr. orders, c.f. receipt, 1934 *Off. Guide*, and other material.

F. L. DONNENWORTH, 3324 Clydesdale St., New Westminster, B. C., Canada, wants to sell or trade *Railroad Magazine* from Mar., May, June, Aug. '36; Apr., June-Oct., Dec. '37, all '38 but Sep., all '39 and '40. What offers?

FRANCIS DORNEY, 15 West St., Bellows Falls, Vt., sells p.c. size pix of 2 dif. Rutland trolleys (open and closed); Burlington, Vt., closed car; Barre-Montpelier Trac. view, 15c ea. Also, 4 views Bellows Falls & Saxtons R. St. Ry. at 25c ea. None are builder's photos.

D. E. DOWNHOUR, 729 N. Elizabeth St., Lima, O., will sell few 1910 emp. tts. of Ohio Elec., Lima-Spgfld., Lima-Tol., Lima-Ft. Wayne and Lima-Defiance divs., 20c ea. plus postage.

L. J. DOWTON, 1507 Visalia Ave., Albany, Calif., will buy any NW Pac. vacation bklt. between 1915 and '24. Also buys any n.-g. pix, size 116. Send lists.

D. P. DRISCOLL, Box 283, Reidsville, N. C., buys clear pix or negs. p.c. size of Sou., HPRA&S, A&Y and Danville & W. engines. Write first.

JOHN DUDIAK, 3300 Norfolk Ave., Lorain, O., offers $1 each for latest complete B&M and C&O rosters from someone in motive power dept. Must give class, cyl. and driver dimensions, engine wt., trac. force, press., bldr., date, grate area, tender cap., etc. Write first.

* * *

F. S. EATON, 85 Laurel Rd., New Haven, Conn., wants old Colo. and Nev. maps showing rrs. now aband. Also data and pix (all sizes) of Mt. Wash Cog; all Catskill Mts. lines; Bost., Revere Bch. & Lynn; and Man. & Pikes Pk. Cog. Has Dec. '39-Dec. '31 *Railroad Magazine* for sale.

EASTERN OHIO CHAPTER, NRHS, 2702 3rd St., N.W., Canton, O., has these souvenirs for sale: 5 NOT&L tail lights (1 red lens) at $2 ea.; NOT&L marker light (red, white, green lenses), $2; Stark Elec. cap badges, $2 ea.; Ohio Pub. Ser. cap badges, 75c ea.; 25 *Ry. Gazette* for 1885, '86, '87, at 2 for $1. All material in good condition. Postage paid. Proceeds go for upkeep of No. 21, the chapter's *protege* trolley car.

* * *

**MEMBERSHIP in the Railroad Camera Club is open to all who collect pictures of engines, trains, cars, stations, etc., or other railroadiana such as books, timetables, tickets, train orders, passes, trolley transfers, etc. There are no fees, no dues. Names are published in good faith, without guarantee.**

**Membership card and pin are given free to anyone sending us the latest Reader's Choice coupon (page 143) and self-addressed stamped envelope. If you don't want to clip the magazine, make your own R. C. coupon. Canadian and foreign readers, enclose loose stamp from your own country, instead of stamped envelope.**

**Address Railroading Magazine at 280 Broadway, New York City. Tell us what you want or offer. Unless you do so, your name will not be printed here.**

*EARL FARMER, probably somewhere in North Carolina, writes to names listed here, asking you to send him money for books, magazines, etc., he doesn't own. Even a prison term for misuse of mail has failed to cure him of this practice. R.C.C. members are advised to be on their guard.—Editor.*

BOB FREDERICK, 3839 Fletcher Ave., Indianapolis, trades tr. orders for same from Alaska, Porto Rico, CofG, Clinchfield, DT&I, IT, LI, GM&O, D&RG, PRR-Rdg., Virg., PRR 31 orders, and others.

* * *

HUGH GALLAGHER, 83 Ocean Ave., Jersey City, N. J., will swap *Railroad Magazine* of April, May '40 and Jan., Feb. '41 for what-have-you. Also wants to hear from stamp collectors.

JOSEPH GALLOWAY, 3627 Torrance Dr., Toledo, O., will buy pix of St. Joseph Val. and copy of *Eqpmt. Register*.

LOWELL GAMBLE, 510 Fifth, Rawlins, Wyo., has May '33, Feb. '37 and Dec. '38 *Off. Guides* to trade. Also Nov., Dec., Jan. magazine. *Trains* for sale or trade.

C. O. GAY, 416 East St., Warren, Pa., buys pix of locos and trains of old Western N. Y. & Pa. main line (Pgh.-Bflo.), pref. near Corry, Pa.

TED GAY, 624 78th St., Brooklyn, N. Y., buys or trades for p.c. negs. or prints of LV 2100 series before streamlining; also Shawmut Lines, Stewartstown, Emmittsburg, East Broad Top, Huntington & Broad Top, and earlier types in the East.

J. W. GAYLORD, 1734 W. Lloyd St., Milwaukee, Wis., has 2000 dif. prints from many roads, modern and old power, to sell at 15 for $1 and 20 for $1. Complete list Milw. Rd. power and specs. Also 200 negs. to sell or trade. List and sample 10c.

WALTER GEIST, 616 Jefferson St., Lockport, Ill., sells photos of B&O Diesel loco No. 57 wrecked last Jan. 17 near Romeo, Ill. Three diff. scenes, p.c. size, 60c; three of size 120, 35c.

R. B. GERSTNER, 55 E. Wacker Dr., Chicago, will trade 6 used Graflex sheet film and plateholders, size 124, for stat. steam engine for boat, O-gage switch engine, power pack, Handee Tool or drill press.

F. P. GEYER, 737 Nebraska, S. W., Huron, S. D., offers *Ry. Age*, old tr. shts., emp. tts., 1903 S. Dak. rr. map, pencils, tr. orders, in exchange for engine and tr. pix, pref. p.c. size, and ry. pencils uniform buttons.

R. GIBSON, 4336 Kamerling Ave., Chicago, trades *Electroliner* tts., Chicago trolley pix, maps, transfers and tts., for same of other cities.

W. E. GLOEB, 4314 Center St., Omaha, Neb., trades 5 dif. postage stamps for 1 rr. button, 15 for a badge or annual pass. Also has 16x24 color pix of *City of L. A.* to trade for stamps, buttons or badges.

CLARENCE GRAY, 762 Main St., Westbrook, Maine, sells pix, size 116, at 10c ea. Has B&O, B&M, CNJ, CV, D&H, DL&W, Erie, LV, L&HR, L&NE, MeC, New Haven, NYC, NYO&W, Por. Term., GT, Rut., and Army rd. at Ft. Dix. Send stamp for list.

A. GREENSTIN, 5236 Ludlow St., Philadelphia, Pa., wants pix and negs. of trolleys, suby. and el trains, interurban cars, size 116 or 616 pref. Send price list.

ROBT. GREENWOOD, 116 Saratoga St., East Boston, Mass., wants BRB&L transfers, rebate tickets, switch keys, rulebooks, any size pix, any other items. Offers several emp. tts., large wall pass. tts., vintage 1880-1900; all kinds Boston el transfers; and few 1-in. unpolished sections of Boston el.

ROY GRIES, 544 Liberty St., Schenectady, N. Y., offers 7 pix, size 116, of Schdy. trolleys. Send dime for 2 samples and list. Also, 5x7 of trolley 806 in service (1915) for 25c.

* * *

BILL HARMON, 359 Cherry St., Elizabeth, N. J., trades Eastern trolley pix, size 116, for PSNJ trolleys.

C. S. HARRAH, 703 N. W. 20th, Oklahoma City, Okla., wants copy of *Gen. Manager's Story* by H. E. Hamblen. State price and cond.

R. L. HARRIGAN, 1905 Penn St., St. Louis, Mo., has 200 negs., size 116, and 100 p.c. size of steam power around St. L. to swap for other U. S. roads.

JOHN HARRIS, R.F.D. 1, Box 28, Lincoln University, Pa., wants negs. all Rdg. locos, incl. camelbacks and mallets from all roads. Also certain CNJ classes and Pennsy 2, 3, 7, 1120, 6100, 8817-8831. Buys and trades. Trades PRR, Rdg, etc., pix size 116 or sells at 35c doz.

JACK HEDDEN, 642 W. 35th St., Los Angeles, Calif., wants to borrow Chicago el and trolley car, N. Y. City suby. (inside) and el (outside), esp. BMT, IRT and Indep., negs. only. Trades L. A. Ry. and Pac. Elec. P.C.C. cars, size 116.

CLYDE HELMS, Saint Marys, O., will buy good size 116 negs. of NKP loco classes U-2 and C-17, also any size prints or negs. of LE&W and T&OC power. Has size 116 prints of engines on NKP, Erie, C&O, NYC, B&O, PRR and AC&Y to trade for same size N&W or older types of NYC.

H. C. HOAG, 4 Brainerd St., Whitesboro, N. Y., wants you to send spare pix, tts., tokens, mags., books, etc. Include 5c postage and he'll send a fair swap from his collection.

Pvt. GEORGE HORN, 1st Engr. Battalion, Headquarters Co., Ft. Devens, Mass., desires info. on any old-time movies of BMT or Manhattan Elev. RR., any size film. Also wants to locate old movies on BMT, 3rd Ave. and PSNJ trolleys.

T. M. HOWARD, 304 E. 42nd St., N. Y. City, will sell copy of book *High Iron* for first good offer. *(Editor's note: You forgot to mention condition of book.)*

ROY HUBBARD, 105-12 Jamaica Ave., Richmond Hill, N. Y., prints stationery, etc., for railfans and clubs at special rates. Has 25 stock engine-picture cuts for use on such work. Offers Phila. Rap. Trans. (now PTC) trolley transfers free; send stamped env.

LESLIE HUDSON, 14 Percy St., Maryborough, Queensland, Australia, trades old-time and modern pix size 116 of Queensland, N. S. Wales, Victoria Govt. rrs., etc., for Canadian N. R. and CP items and any U. S. pix.

CHAS. HUFFER, Assumption, Ill., trades steam loco pix, size 116 and 130, for Missouri, Miss'pi and Ohio River boats, esp. of the *Capital*. Send your list; receive his. No Diesel boats wanted.

H. I. HUMPHREY, 22 Theron St., Johnson City, N. Y., buys or trades negs. size 116 or p.c. of D&H 4-4-Os as camelbacks or rebuilt.

* * *

THOMAS JACOBS, Jr., Kings Mountain, N. C., offers 53 issues of *Railroad Man's Magazine*, 1907-'15, good cond., 50c ea. Also $40 Lionel O-gage outfit 273W, complete, almost new, for $20.

B. JENNINGS, 4205 Falls Rd., Baltimore, Md., trades, sells 5x3½-in. pix of old Balt. and other trolleys. Send for list. Set 85 Balt. trolleys, old and new, all types, $4.50, or trade for same from other city. Will *trade Loco. Cyclopedia* 1916 and '38 and *Car Builders'* '37 for trolley catalogs or mags.

J. W. JENNINGS, 72 Days Park, Buffalo, N. Y., buys any size pix of interurbans, catalogs and blueprints of elec. cars; also n.-g. lines, esp. Western roads and Maine 2-ft.-gage lines.

R. K. JONES, 44 Warren St., Salem, Mass., will pay 25c for Apr. '33 *Railroad Magazine* and 30c for Jan. '37, good cond.

* * *

PAUL KALTER, 1931 Idaho St., Toledo, O., will trade 1927 NYC tt. and few interurban pix, size 116, for any size Uintah pix. Wants to hear from FEC trainman running between Miami and Key West.

ARTHUR KANE, 2827 E. 23rd St., Oakland, Calif., collects pix, size 120, 620 and 116, of NP, GN, CMStP&P, Spokane Internat'l., UP, SP&S, and any road entering St. Louis. Trades local and S. F. and Oakland rr. pix. Collects rr. pencils too.

SEYMOUR KASHIN, 3569 DeKalb Ave., The Bronx, N. Y. City, has steam road tts., trolley and bus transfers to trade for others. Also wants route maps.

THOMAS KELLY, 9422 76th St., Ozone Park, N. Y., has many late *Off. Guides*. Wants pix, pref. 116-616, of trolley, suby., el, interurban and other elec. lines. Send list if possible. All mail ans'd.

ROBT. KERR, 1227 Boulevard, Lake Charles, La., wants to hear from fans about songs regarding rrs., trolleys, hoboes, traveling salesmen, etc. Is in the market for such material.

KENNETH KIDDER, 1948 Pacific Ave., San Francisco, trades trolley, train, river and ferry boat postcards.

JAMES KNOX, Star Rt., Guilford, Maine, wants to buy unclipped *Railroad Magazine* issues July-Dec. '37, Jan. and Oct. '39. Will trade or sell Dec. '38 in good cond.

BASIL KOOB, Hillsboro, Wis., wants to hear from those with 35 mm. sound rr. films for sale or rent, 1 or 2 reels. Will buy 2nd hand "bug," box, relay and key or main line sounder. Swaps printing for rr. books, films or pix.

OSCAR KRAINES, 2073 76th St., Brooklyn, N. Y., will sell *Poor's RR. Manual*, 1903, replete with maps, history, pix, statistics, 1725 pages. Make offer.

M. KRITZBERG, 4748 N. Pulaski Rd., Chicago, has hundreds of back numbers of *Railroad Magazine*, 1938, '39, '40, for sale or trade. Send stamp or postcard for list and dates. *(Editor's note: Readers who answer this item should request info. on condition of magazines.)*

FREDERICK KUMMER, 3248 W. 48th St., Cleveland, O., collects wide variety steam and juice pix, incl. foreign, all sizes. Has several trolley guides to trade for pix, one guide for 5 prints or 2 negs. "Name city you want; I'll try to get it for you," he says. Is disposing of postage stamp collection, incl. some train stamps. Write for details. Also wants to hear from postcard collectors.

* * *

ALAN MacMILLAN, Box 321, Troy, N. Y., trades or sells many pix of most N. Eng. roads, aband. elec. lines, esp. Springfield, Mass., St. Ry. Wants negs., size 116, and info. on N. Y. and N. Eng. elec rys. and short lines. List for 3c stamp.

ALBERT MANKOFF, 278 Main St., West Orange, N. J., offers complete PSNJ pass. car roster for $1, with desc. of every type from car 1 to 8019 and lines most ran on.

RANDOLPH MATHEWSON, Box 33, Durham, Conn., wants info. and pix of NYNH&H rear-end collision at Westport and Saugatuck in Sep. '35; and doubleheaded wreck at Manchester, Mar. '34. Also CV train 3, gas-elec. engine 144 head-on with extra 479 at Franklin in July '34 or '35. Offers pix of U. S., Canadian and foreign eqpmt.

HOWARD MATTESON, Greene, R. I., interested in NYNH&H tts. dated Jan. '32, good cond. Write first. Would like to hear from railfanettes around own age (21 yrs.).

JAMES McROBERTS, 908 Madison, Topeka, Kan., will buy *Railroad Magazine* issues 1929-'34; Jan.-Mar., July, Sep. '35; Jan.-Mar. '36, in good cond. Write first.

EDGAR T. MEAD, North St., Greenwich, Conn., offers list of n.-g. trolley and std. gage pix, p.c. size, for 10c. Wants p.c. pix of Sou. 2-10-2, Puerto Rica RR and old Colo. n.-g.

*Photographed in June '39 by Elwin K. Heath, Box 15, Barre, Vt.*

**Number 106 of the Central Vermont (4-4-0 Type, Class B-3-a) Is Perhaps the Only Engine in Service Today from the Old Adirondack & St. Lawrence. She Was Built as StL&A 101, with 78-inch Drivers, But the CV Gave Her 70-inch Drivers, a New Boiler and Economy Valve Gear. At One Time She Was Numbered CV 129**

LELAND MECK, P. O. Box 304, Courtland, Calif., says he has many issues of *Baldwin Locomotives* from 1927 to '40, several in each year; also June and Dec. '30 *Henschel Review*, and copy of *LMS Locos, Past and Present*. Make cash offers. He writes: "Should I receive suitable offers for any or all of this material, I will mail the mags. collect, giving the purchaser the right to examine them before accepting the consignment or paying for it." *(Editor's note: Mr. Meck's offer is not only very fair but is necessary in dealings of this kind. Presumably he will send full info. as to dates and condition of* Baldwin Locomotives *mags. to anyone enclosing stamped addressed env. We hope readers will treat Mr. Meck as squarely as they expect him to treat them. Remember, Mr. Meck will have to pay double postage if the would-be purchaser refuses the consignment he mails out collect.)*

DELMER MILLER, c/o Orbe Miller, Gen. Del., Pekin, Ill., offers AAR rules on loading commodities on open-top cars and Moody's *Earning Power of RRs*, 1923, postpaid, in exchange for engine pix.

LILA MITCHELL, 722 E. Iroquois St., Freeport, Ill., wants to buy July '39 *Railroad Magazine* and any other mag. with much material on Chi. Gt. Western.

R. S. MOORE, 185 N. Broadway, Mt. Clemens, Mich., wants pix, size 116, p.c. or larger, of Eastern interurbans (Mich., O., Ind., Ill., Pa., etc.) taken before late 1930's. Send list.

J. L. MOUNTAIN, 4523 N. Kildare Ave., Chicago, has six sets of 10 dif. Brookville Diesel engine blackprints, size 8x10; U. S. and foreign engines. Wants old rr. folders and adv. samples or engine pix size 124. Wants to hear from anyone named *Mountain* also anybody interested in railroad advertising.

GLEN E. MOSHIER, Elkhorn, W. Va., has few copies *Railroad Magazine* to trade for other issues same publication. Also *N&W Mag.*, Nov. '40, and 1926 and '27 *W. Va. Blue Book* to trade for *Railroad Magazine*. Perfect copies desired. Write for free list.

JAMES E. MUDD, 46 Rivers Ave., Willimansett, Mass., is assembling material for mimeographed leaflet directory of emp. tt. collectors, to be distributed only to those who advertise at 10c or 2 emp. tts. for each 5-line insertion, plus 5c or another emp. tt. for each additional 2 lines. Change of listing costs 10c or 2 emp. tts. and will be included in supplements to be brought out from time to time.

HASKELL MYERS, Shelbyville, Ind., will trade Dec. '38-July '40 *Railroad Magazine* (some covers torn) for Feb., Apr., July, Aug., Dec. '34; Jan., July '33; Oct. '32; Aug.-Nov. '35; Mar., Sep., Nov., Dec. '36; Jan., Feb. '37 and Apr. '38, complete with loco rosters. Write first.

* * *

FRITZ NAGEL, 660 Franklin St., Denver, Colo., buys any size pix of aband. n.-g. or short lines in Colo.

EDWARD NAGY, 426 E. 67th St., N. Y. City, wants trolley catalogs, esp. Brill and Jewett; also few pix, size 116 or p.c., of aband. N. Jersey PSCT lines and info. on early PSCT trolley routes.

JOHN NELSON, 1720 Elm Ave., Sheboygan, Wis., has pix, size p.c. and few 116, of Ishpeming & Lake Sup.; Escanaba & Lake Sup.; DSS&A; Soo; Wis. Pow. & Lt. (aband Dec. '38) and TMER&T interurbans; and Lake Mich. car ferries. Wants nor. Ohio interurbans, esp. Lake Sh. Elec.; Cleve.; and Painsville & Eastern.

E. V. NICHOLS, 605 N. Ervay, Dallas, Tex., has 85 pan-X pix No. 620 of Okla Cy. complete system and aband. term. station. Also many views Corsicana-Dallas interurban, aband. Feb. 4, and 25 small pix Austin, Waco, Shreveport, Ft. Worth and Dallas. Send stamp for reply.

HAROLD NORRIS, 146 W. 85th Pl., Los Angeles, Calif., will pay well for *Off. Guide* printed in summer of 1915 or '16. Write price and cond. first.

* * *

R. M. PARKE, 405 W. White St., Champaign, Ill., sells IC, Milw., N. Sh. elec. and misc. old-timers, size 116, for dime ea. Also approx. 9x11 blueprints, pix of historical engines, 35c ea. List free. Wants hist. data, old pix, etc. Also Erie and Vgn. triplex engines and early D&RG and Colo. Mid.

GEO. PEARCE, 2523 N. Purdum St., Kokomo, Ind., starting, wants info., pix or negs. of aband. Terre Haute-Sullivan elec. line, pix of former Kokomo trolleys, and Tol. & Ind.; Ind., Kok., Mar. & W., and Ark. Val. locos. Sells typed history of Ind. RR. for $1 or trade for 30 pix size 116 or larger. Also *Railroad Magazine* May '39-'41 (except June '39) and *Ry. Clerk*, Oct., Nov. '40, to trade or sell.

TOD PIAGET, 127 Clark St., Hillside, N. J., beginner, wants rr. pix and negs. from any place. Other fans, write. All mail ans'd. *(Editor asks: What size pix, what subjects, and what do you offer in cash or trade?)*

FRANK PHILPOT, 1860 E. Grand Blvd., Detroit, Mich., collects original and present KCM&O (Orient) eqpmt. Needs rulebook, timecards, various tts., switch key, lantern, any size pix of engine, caboose, frt. and pass. car, wrecking and work eqpmt., crossing signals, rt.-of-way scenes, etc. All mail ans'd.

ALFRED PLATT, Howe Caverns, Inc., Cobleskill, N. Y., buys trolley trip guides pub. between 1900 and 1915.

TED POLITO, 410 N. Van Brunt, Kansas City, Mo., offers *Railroad Magazine* from Jan. '35 to date, complete, all good cond. and unclipped; 25c ea. postpaid.

KEITH PREGLER, 1596 Auburn St., Dubuque, Ia., sells, trades negs. size 616 and pix 616 and p.c. of Manchester & Oneida 4 (2-4-4T), 5 (4-4-0), 6, (4-4-0), ancient coach 954, homemade flatcar, Manch. depot, Manch. engine shed, Oneida wye and 10 rt.-of-way scenes. *(Editor's note: April '41 issue has leading article on M&O.)*

* * *

NORMAN REEDS, Reaboro, Ont., Canada, has 8 issues *Min. R'roading*, 3 *Model Builder*, one *Can. Nat'l. Mag.*, one *Coin Encyclo.*, all good cond. What am I offered in size 116 *CP or CN* prints or negs.?

WM. REYNOLDS, 176 Gibson Ave., White Plains, N. Y., offers pix of 14 historic N. Y. World's Fair locos (size 116 or 120) for 60c, and 9 track exhibit pix (size 116) for 40c. Also, 116 size 14 NYC locos (steam 4-4-0, 4-6-0, 4-6-2, 4-6-4, 2-8-2; elec. 4-8-4, 4-4-4-4, 0-6-0+0-6-0) for 60c; and 2 p.c. size views NY, Wchr. & Bost. aband. elec. for 15c; one for 10c.

NORMAN ROLFE, 154 N. 10th Ave., Highland Park, N. J., has trolley transfers and size 120 pix of trolley lines in N. Y. area, incl. many non-passenger cars, to swap for same from other parts of U. S. and Canada.

W. P. RUSSELL, 270 Washington St., Marblehead, Mass., offers 1933-'34, 1936-'40 *Railroad Magazine* at 20c per issue plus postage. Buys and sells rr. books.

* * *

KENNETH SANDERSON, 415½ N. Harrison St., Saginaw, Mich., pays reas. price for maps, tts. and pix, any size, of Detroit United, Mich. United Trac., Mich. RR. and Saginaw Trans.

JOS. SCHICK, Box 65, Keenesburg, Colo., has 2100 pix, size 116-616, of 157 rrs., incl. SLVS, MT, GW (Colo.), M&PP, D&SL, C&S and many D&RGW. List and sample, 10c.

STEVE SEMBRAT, 408 Justus Ave., Carnegie, Pa., offers foreign stamps for any size photo of Pennsy train wreck near Pittsburgh, Pa., Dec. 25, '38.

DON SHELBURNE, 5954 Malabar St., Huntington Park, Calif., will buy any size loco pix of FtS&W, KO&G, Mid. Val. and Ok. City, Ada & Atoka. Has loco pix, size 120, of LA Jct. RR. Wants to hear from persons interested in exchanging, buying, selling, or loaning 8 mm. rail movies, any length.

RUSSELL SHERRILL, Newton Square, Pa., will trade 20 copies *Trans. Journ.* July '38-Dec. '40 for representative pix of Conn. Co. trolley eqpmt. and aband. Shore line elec. eqpmt., size 616.

DWIGHT SMITH, Box 398, Mt. Hermon, Mass., 17-yr.-old high school graduate, wants any kind of railroad job in New England for this summer; low wages.

JOS. SNELLENBURG, 171 W. 79th St., N. Y. City, wants rulebooks of all Eastern roads after 1935 and emp. tts. after '38. State prices.

FRED STEVENS, 18 Duke St., Truro, Nova Scotia, Canada, will trade Can. Nat. tr. orders for those of roads in U. S. and anywhere in British Empire. Also wants to correspond with Boy Scouts, Girl Scouts and Girl Guides anywhere.

JUNIOR STEVENSON, 1006 Virginia St., Walkerton, Ind., offers 700 U. S. and foreign stamps for pix size 116 or p.c. Write first.

BERNARD STONE, 1138 Columbia Ave., Chicago, buys pub. or emp. tts., etc., of IC or predecessors before 1926. Give description and price.

JOHN STORM, Benwood, W. Va., has published sheet music for new song, *Let the Santa Fe Take You.*

DONALD SULLIVAN, 34 Potters Ave., Providence R. I., will sell Jan. 1908 and Aug. '18 *Railroad Man's Magazine* for best cash offer. Buys any old baseball books, etc., prior to 1930; no fiction.

EDWIN SUNDAHL, 805 W. Kansas Ave., McPherson, Kan., has MP, SL-SF, AT&SF, CRI&P, UP, MKT and other Midwest roads, sizes 116 and 120. Send 10c for list and 2 samples.

ARTHUR SWARTZ, Concordia College, Ft. Wayne, Ind., trades p.c. size pix of Ind. RR., Nickel Plate, Wabash and many others for other steam roads, or sell at 6c ea., 20 for $1. List and sample 10c.

MARTIN SWETNICK, 2072 73rd St., Brooklyn, N. Y., wants to exchange letters with rr. tower men.

* * *

WM. TEZON, 1217 Rival St., Boonville, Mo., will sell *Railroad Magazine* issues Aug., Nov. '31; Apr., Oct. '32; Mar., June, Aug.-Nov. '33; May, Sep., Oct., Dec. '37; Feb., Mar., Aug., Nov. '38; Jan., Feb., Dec. '39; all '40

*Allston Railroad Photographs, 47 Royal St., Allston, Mass.*

**"The Ottawan," Pride of the Canadian Pacific, Highballed by Number 2318, Getting Up Speed After Leaving Windsor Street Station, Montreal**

and '41 to date, good cond., 25c ea. postpd. or trade for 6- or 8-power prism binoculars or 15- to 30-power telescope.

HENRY TRUMAN, Gen. Del., Glen Easton, W. Va., will sell colored picture of famous Civil War engine *General*, reasonable. *(Editor asks: What size picture?)*

HENRY TISCHLER, 310 W. 106th St., N. Y. City, sells steam loco. pix, size 116-616, of 85 U. S. rds., many short, aband. and n.-g., 5c ea., 23 for $1. List and 2 samples 10c. Also negs.

J. W. TURNER, 5601 Wilkins Ave., Pittsburgh, Pa., offers size 116 Pennsy engine pix at 6 for 25c or trade for other odd PRR classes. List and sample for stamp.

* * *

CHARLES UNRUH, 4028 Madison Ave., Culver City, Calif., has *Exam. Questions and Answers for Enginemen, SP Rules & Regulations,* and 140 pix size 116 to trade for best offer in NYC or Pennsy calendar. Offers Van Meter's *Trains, Tracks and Travel,* intact for 4 PRR calendars.

VITALY UZOFF, 509 W. 142nd St., N. Y. City, wants to hear from other transfer collectors; will swap transfers of Bronx and Manhattan. Send 4c for 2 samples and list. Will trade transfers for trolley pix, 10 diff. for one pic. Will exchange 1929 map 3rd Ave. Ry. for pix abandoned trolleys in Newburgh, Glen Cove, or old N. Y. City lines. Will buy pix N. Y. el steam locos.

* * *

J. VERMEULEN, 119 W. 110th St., Chicago, will trade 75 colored rr. postcards for Stoegers 1940 gun catalog.

* * *

VICTOR WAGNER, 6341 S. Wolcott Ave., Chicago, trades, sells Chicago and vicinity juice pix and negs., sizes 616 and 120. Juice fans from all over U. S. and Canada, write.

SYDNEY WALKER, 1610 N. 52nd St., Philadelphia, Pa., buys, sells, trades trolley and interurban pix, size 120 or larger. List and sample 10c.

ROBT. WALLICH, 2 Clermont Pl., Garrett Park, Md., selling collection 324 pix of all lines entering Wash., D. C., also SP, New Haven, Md. & Pa., W&OD, EBT, WB&A, Miss. Cent., and 100 ft. of 16mm. film. Make offers.

C. R. WENTLAND, Robertsville, O., buys still or action pix, size 122 or p.c., and tts. of aband. Cleve. S.W. elec. Also pix of Pickens; Edgemoor & Manetta; Smoky Mtn.; Blue Ridge Line; CN&L; Augusta No.; Beaufort & Moorehead; Caro. So.; Wadley So.; Ga. & Fla.; ET&WN; and Car., Lancaster & Chester.

RAY WESTING, 4978 Loughborough Ave., St. Louis, Mo., buys p.c. pix of L&N locos; send list. Postage refunded. Trades, sells many emp. tts., back *Railroad*

**RAILROAD MAGAZINE** Reader's Choice

**280 Broadway, New York City**

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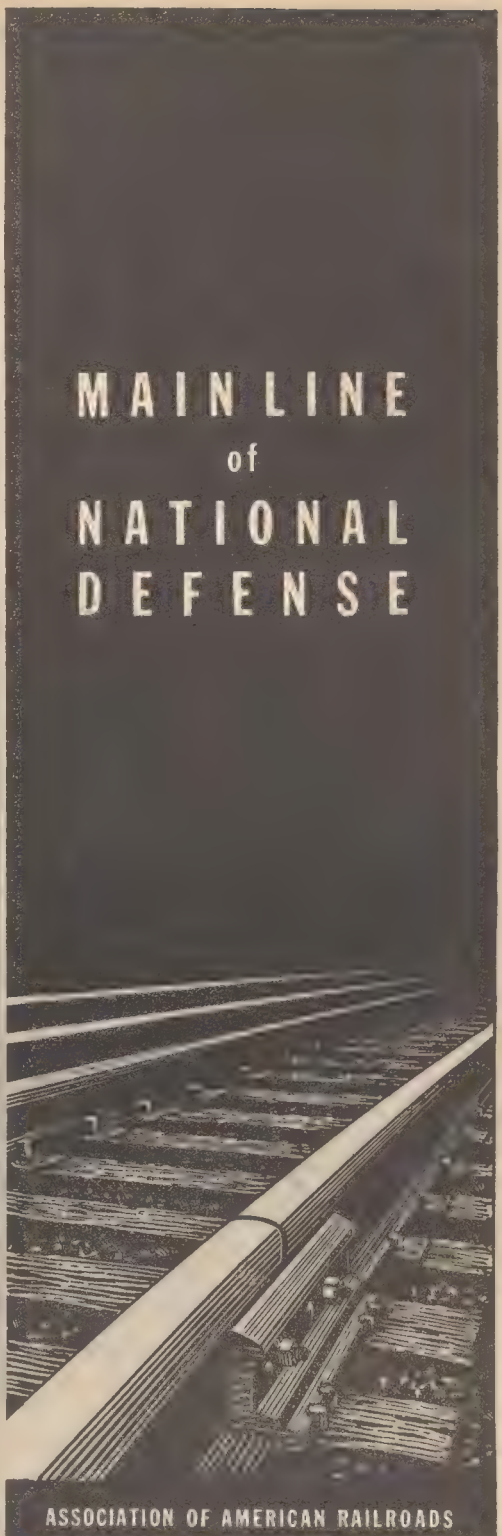

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This locomotive represents the latest in steam locomotive streamlining. Used on the New York Central's fast passenger service. Replica measures 10½" x 2½" x 2¼"—heavily silver-plated, oxidized finish.

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Here's how you can do it — A year's subscription to RAILROAD MAGAZINE costs $1.50 and the silver-plated replicas sell for $3.00 each. You can get both for only $3.75 (magazine and replica) . . . a saving of 75c! The supply of these little engines is limited, so fill out and mail the coupon or write today with your check or money order.

**This offer is good only in the United States.**

RAILROAD MAGAZINE, Sub. Dept.,
280 Broadway, N. Y. C.

Enclosed is my check (money order) for $.....
Please send RAILROAD MAGAZINE for one year and the replica I have checked to:

Name.....

Address.....

☐ Hudson Type Locomotive
☐ Union Pacific "Challenger"

.....

*Magazine, Loco. Eng. Journ., Ry. Age, Off. Guide* and several calendars for emp. tts. or others rr. literature.

CURT WIEBE, 1523 E. 1st St., Santa Ana, Calif., sells AT&SF and SP tr. orders, 5c ea.; few *Santa Fe Mags., SP Bulletins* and old issues of *Railroad Magazine* (1936-'40 incl.), 15c ea. Also prints of Pac. Coast Ry., Sta. Maria Val., SP, AT&SF, incl. *San Diego* flyer, all 120 size, 5c ea. *(Editor's note: Curt, you failed to state condition of magazines you offer for sale.)*

GLENN WILLIAMS, La Clede, Ill., has 25 copies of *Railroad Magazine*, good cond., for best cash offer.

FRED WILSON, Branch Hospital, Cincinnati, O., buys pub. tts. Send lists. All letters answered.

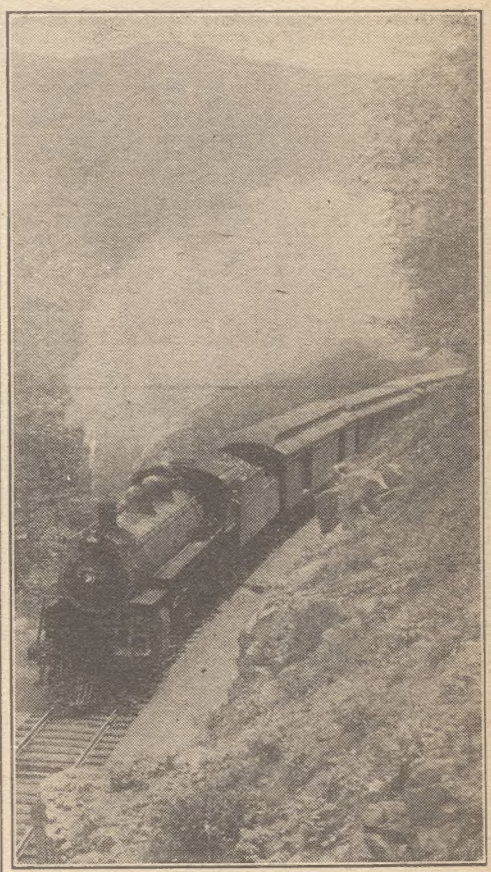
WESLEY H. WINANT, 500 W. Summit Ave., Elmhurst, Del., wishes to swap *Off. Guides*, one of '37 four of '38, and two of '39 for B&O and Rdg. negs., size 616. Write first. *(Editor's note: Our mind-reading expert says Wesley refers to engine pictures.)*

HERBERT WOLTERS, 128 Chestnut St., East Orange, N. J., offers grab-bag packet of various pix, size 616, for 30c. Also, many 1938-'40 *Railroad Magazine* issues; which do you want? Erie 5016 and Vgn. 500 (2-8-8-8-2's), size 616, at 10c ea.

* * *

W. A. ZACKON, 4915 Westfield Ave., N. Merchantville, N. J., wants to hear from juice fans in Okla. and Tex. Swaps pix of Phila. area lines for Tex. Elec. and Okla. Rys.

ROTH ZAHN, 221 E. Main St., Westminster, Maryland, will buy copy of *Railroad Magazine* with W.MD. roster, or trade W.Md. tr. orders for same.



**Boston & Maine Train (Engine 458, Two Baggage Cars, Air-Conditioned Coach) Photographed Above Frankenstein Trestle by Francis Monahan, 10 S. Gerry Ave., South Portland, Maine**

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